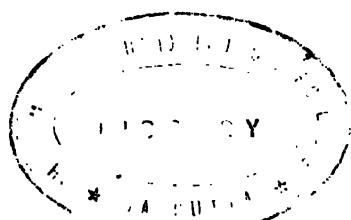


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Indian Economic Association

Proceedings

of the

Third Annual Conference

held in

Senate House, Madras

December 31st, 1919, January 1st, 2nd and 3rd, 1920

MADRAS

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1920

Indian Economic Association.

Executive Committee for 1919.

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PROFESSOR J. C. COYAJEE, M.A., Presidency College, Calcutta, *Hon. Secretary.*

H. STANLEY JEVONS, M.A., Professor of Indian Economics, University of Allahabad, *Hon. Treasurer.*

GILBERT SLATER, M.A., D.Sc., Professor of Indian Economics, University of Madras, *Hon. Local Secretary.*

PROFESSOR A. R. BURNETT-HURST, B.Sc., Muir Central College, Allahabad.

PROFESSOR C. S. DEOLE, M.A., Servants of India Society, Bombay.

PROFESSOR E. A. HORNE, M.A., Patna College.

PROFESSOR KALE, Fergusson College, Poona.

PROFESSOR H. W. LYONS, M.A., Indore Christian College.

HAROLD H. MANN, D.Sc., Ag. Director of Agriculture for Bombay Presidency.

Executive Committee for 1920.

The above with the addition of :—

PROFESSOR J. C. HAMILTON, M.A., Patna College.

RAO BAHADUR K. V. RANGASWAMI AYYANGAR, M.A., H.H. The Maharaja's College, Trivandrum.

Chairman.—Dr. GILBERT SLATER.

Hon. Secretary.—PROFESSOR J. C. COYAJEE.

Hon. Treasurer.—PROFESSOR H. STANLEY JEVONS.

Hon. Auditor.—MR. M. K. RAJAGOPALACHARIAR, F.C.I.

Reception Committee for Madras Conference.

President.—HIS EXCELLENCY LORD WILLINGTON, G.C.I.E., G.C.S.I., Governor of Port St. George.

Vice-President.—THE HON'BLE MR. R. LITTLEHAILES, Director of Public Instruction, Madras.

Chairman.—THE HON'BLE MR. JUSTICE F. DUPRE OLD-FIELD, Vice-Chancellor of the University of Madras.

Hon. Secretary.—GILBERT SLATER, M.A., D.Sc., Professor of Indian Economics, University of Madras.

Constitution

1. The objects of the Indian Economic Association shall be

(a) the holding of annual conferences,

(b) the publication of the proceedings of the annual conferences,

(c) the publication of journal and its free issue to members,

(d) such other action to promote Economic Science and the dissemination of economic information as may be deemed advisable.

2. The membership of the Association shall be open to teachers and students of Economics and to other persons interested in Economics in general or in special Economic problems, if duly elected.

3. The government of the Association shall be vested in a Committee of not more than twelve and not less than six members elected at the annual conference.

4. (a) The officers shall be an Honorary Secretary and an Honorary Treasurer, and a local Honorary Secretary.

(b) The posts of Honorary Secretary and Honorary Treasurer may be held by the same person.

(c) The local Honorary Secretary shall be elected for one year at the annual conference from members resident in the locality selected for the ensuing conference, for which a local Committee shall be formed.

(d) The officers shall be *ex-officio* members of the Committee.

(e) The tenure of office of the Honorary Secretary and Honorary Treasurer shall be for one year or until their successors be elected.

5. The agenda of the annual conferences shall be drawn up by the Honorary Secretary.

6. In addition to papers from members the Honorary Secretary may arrange for papers from associates and non-members, if thereby valuable contributions can be obtained from experts on particular questions.

7. The annual contribution from members shall be Rs. 12 per annum, and this shall entitle members to attend conferences and to receive copies of such papers read at the annual conferences as may be published, and any other reports of the proceedings and all other publications of the Association unless expressly excepted.

8. The annual contribution for associates shall be Rs. 6 per annum and this shall entitle associates to attend conferences and to receive such reports of the proceedings as are published by the Association, but not to vote on the affairs of the Association.

Members of the general public may be admitted as visitors to the conferences by ticket at the discretion of the local Committee at a charge to be fixed by the General Committee.

9. Candidates for membership shall be proposed and seconded by members and accepted by the Committee by a two-thirds majority.

10. Applications to become associates shall be submitted to the Committee by the local Honorary Secretary.

11. A member on paying a contribution of Rs. 200 shall become a life member, exempt from all further contribution.

12. It shall be the duty of the Committee to arrange for such cordial co-operation as may be found practicable with local Economic Association and with All-India Associations having cognate aims.

13. It shall be the duty of the Committee to arrange for the publication of the proceedings, either through existing journals or independently.

14. Notice of proposed amendments to existing rules and of proposed new rules shall be forwarded in writing, not later than 31st October preceding the meeting to which they are to be submitted and not less than two months before the meeting, to the Honorary Secretary, by whom they shall be circulated to members not later than 25th November and not less than one month before the date of the meeting.

15. A two-thirds majority of the members present and voting at the Annual Meeting shall be required to alter the Constitution of the Association.

16. The annual accounts shall be closed at the end of September and shall be submitted, after audit, to the Annual Meeting by the Honorary Treasurer.

17. One or more Honorary Auditors shall be appointed by the Committee.

Secretary's Report

In submitting the report of the first year's work of the Indian Economic Association it might be pointed out that the first general meeting of Economists in India was held in Calcutta in December 1917, the convener being Professor Hamilton, the Minto Professor of Political Economy in the University of Calcutta. The second meeting was held in Bombay in December 1918, at which Professor Anstey (Principal, Sydenham College) presided. At this meeting the constitution of the Association was drawn up and adopted. Both meetings were attended not only by professional teachers of Economics but by many experts whose names are familiar in circles of business and finance in India.

The membership has more than doubled in the current year and has increased from twenty-five to seventy-three. Besides the members there are three Associates on our list.

On the side of our publishing activities we have printed the proceedings of the Bombay meeting in number of the Indian Journal of Economics. The papers have also been printed separately and are now on sale.

New directions are opening out for the activities of the Association. The Director of Statistics has informed us that the Government of India have under consideration the improvement of statistics relating to Indian prices and he has asked the Association to advise on the ideal method of constructing and all India index number of prices. Suggestions from the Association has also been invited on the improvement of wholesale and retail price statistics generally.

It remains to be noted that various Indian Universities have shown their appreciation of the work of the Association. We meet here on the invitation of the University of Madras. It gives me great pleasure to inform you that the University of Allahabad has invited the Association to hold its fourth Conference in Allahabad and has offered the use of the University buildings for the purpose of the Conference.

J. C. COYAJEE.

*MINUTES of the Meeting of the Indian Economic Association
at the Senate House, Madras, Friday, January 2, 1920.*

Present :—PROFESSOR ANSTEY in the Chair.

• Dr. Slater, Professors Hamilton, Lyons, Brown, Coyajee, Pritam Singh, Shahani, Kaji, Antia, Bhattacharya, Nanavati, Burnett-Hurst, Ali Akbar, Kale, Mankar, Saunders and Rangaswami Aiyangar, Father Carty, and Messrs. Kuppusamy Iyengar, Madon, Hanumanta Rau, Gopal Menon, Venkatarangaiyer, Sundara Reddi, Mr. and Mrs. Rajagopalachariar, Dr. Matthai, Messrs. Satyanarayana Murti, Sundara Row, Lakshmana Aiyer, Srinivasachari, Duraiswamy Aiyar, Aravamuthan, Subramanian, Chandrasekharan, and Rao Bahadur Kibe.

The Honorary Secretary's report was read and adopted. In the absence of the Honorary Treasurer, Professor Stanley Jevons, then on his way from England, the Treasurer's report was deferred to the next meeting.

Principal Anstey moved that (a) the Indian Economic Association should renew the present arrangement with the Indian Economic Journal in some form and that (b) the proceedings of the present Conference be printed not in a separate volume but should appear as a number or numbers of the Indian Economic Journal. Professor Pritam Singh seconded the motion.

Professor Hamilton moved an amendment to the effect that (a) this Association should form a Committee for the purpose of ascertaining the probable circulation and income to be derived from an independent volume of proceedings. If the financial prospects appear adequate the arrangement with the Allahabad University should be terminated and an Editorial Board should undertake the publication of the separate volume of proceedings; (b) that as an interim arrangement to facilitate the early publication of the proceedings of the present Conference the offer of the Madras Reception Committee (if forthcoming) to issue the proceedings on its own responsibility, be accepted; it being further understood that this financial liability shall be undertaken by the Association if the financial prospects prove favourable. Professor Burnett-Hurst seconded Professor Hamilton's proposition. Principal Anstey then withdrew the second part of his proposition. Professor Hamilton's proposition was then carried it being understood that the details as well as the choice of the sub-committee should be left to the Executive Committee.

The invitation of the Allahabad University to hold the Conference in Allahabad in 1920 was read by the Secretary. Professors Burnett-Hurst and Pritam Singh also spoke, cordially inviting the Association to Allahabad. Professor Coyajee moved the acceptance of the offer which was seconded by Mr. Sundara Reddi. The proposition was carried unanimously.

Sardar Bahadur Kibe then invited the Association on behalf of His Highness the Holkar's Government to hold a Conference at Indore the year after. It was resolved that this invitation should be recorded and referred to the Conference at Allahabad. The Secretary was requested to acknowledge the invitation.

As to the date of the next Conference it was resolved that it should be held immediately after Christmas.

Professor Anstey moved that Dr. Slater should be appointed Chairman of the Committee for the next year. The proposition was seconded by Mr. Satyanarayana Murti and was carried by acclamation.

Professor Burnett-Hurst proposed that Professor Coyajee should continue to act as Secretary for another year. Professor Saunders seconded the proposition which was carried.

On Professor Coyajee's motion it was resolved that Professor Jevons should continue to act as the Honorary Treasurer.

Dr. Slater moved that Mr. Rajagopalachariar should be the Honorary Auditor for the next year. Mr. Coyajee seconded the proposition which was carried.

Professor Coyajee moved that the work of collaborating with the Department of Statistics for the improvement of Index numbers and price statistics be referred to the Executive Committee. Professor Kale seconded the proposition which was carried.

The new members proposed to be elected were then put up and were elected.

Professor Hamilton proposed that the question of the affiliation of local societies to the Association be submitted for action and report to the Executive Committee. Professor Kaji seconded the motion and it was carried.

Mr. Rajagopalachariar moved that the Executive Committee should enquire into the possibility of a Journal of the Association or of a united Journal for India ; it should report to the next Conference and meantime should collect funds if possible. The motion was carried by nineteen votes to eighteen votes.

Father Carty moved that only two more members should be added this year to the Executive Committee and only from provinces which are least represented. The motion was carried.

Professor Hamilton moved that Madras should have one more representative on the Committee. As Professor Saunders and Father Carty withdrew from candidature Professor Rangaswami Iyengar was elected. Professor Hamilton was then added representing Patna.

Professor Sahani then proposed that the existing members of the Committee be continued for another year. Professor Burnett-Hurst seconded the motion and it was carried. Professor Hamilton proposed that if the members thus appointed could not serve the power of co-option should be given to the Committee. The proposition was carried.

The meeting then adjourned.

MINUTES of the adjourned Meeting of the Indian Economic Association at the Senate House, Madras, Saturday, January 3, 1920.

Professor Coyajee moved a vote of thanks to the University of Madras, to His Excellency Lord Willingdon, to the Reception Committee and to the Local Secretary. Professor Brown seconded the motion and it was carried unanimously. Dr. Slater replied on behalf of Madras University and the Reception Committee. He said that when he approached His Excellency Lord Willingdon on the matter of the Conference he had been received in the most cordial manner. Though His Excellency could not alter his arrangements so as to be present and to preside at the Conference yet he took steps which increased the pleasure and profit derived by the members from their visit to Madras.

Dr. Slater then moved the motion to the effect that 'we, the Madras members of the Indian Economic Association, shall be grateful if the Reception Committee will continue in office a little longer in order to see what can be done for promoting the study of Economics in Madras Presidency and adjoining states.' Professor Saunders seconded and Mr. Chitty Babu supported the proposition and it was carried unanimously.

[N.B.—These minutes will be submitted to the Allahabad Meeting for confirmation.]

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INDIAN ECONOMIC ASSOCIATION

Third Annual Conference

HELD IN

The Senate House, Madras

December 31, 1919, January 1, 2 and 3, 1920.

First Day

SUBJECT :—The Teaching and Study of Economics

CHAIRMAN'S ADDRESS

The Hon'ble Mr. R. Littlehailes, Director of Public Instruction, Vice-President of Reception Committee, in the absence from Madras of the President, His Excellency Lord Willingdon, took the chair at 11 a.m., and said :—

‘I have very much pleasure in welcoming to the third annual conference of the Indian Economic Association all of you who are present here this morning.

‘I should like in the first place to read a letter which Dr. Slater has received from His Excellency Lord Willingdon.

‘DEAR DR. SLATER,

‘I am very sorry that I am not in Madras to welcome the delegates to the Economic Conference, but I hope you will give them a very warm greeting on my behalf and assure them that it is not want of interest in the very important matters which will be discussed, but the feeling of the necessity for a brief Christmas holiday which has kept me from Madras at this time. I much hope that the discussion will be fruitful of much useful information and practical suggestions to us all. There is no question of more vital importance just now not only to India but to the whole civilized world.’

‘Yours sincerely,
‘WILLINGDON.’

‘As you probably know, the Indian Economic Association took its origin in a meeting which was held two years ago in Calcutta—a meeting called together by Mr. Hamilton with the object of enabling those engaged in economic studies in India to interchange views and to co-operate in the work they have in hand and in view. Last year the second annual conference was held in Bombay; it owed its success to a very large extent to the energy of Mr. Percy Anstey. This year the third meeting of the conference is held in Madras. This meeting is of special significance inasmuch as it is held in the Senate House at the special invitation of the Syndicate of the University of Madras—an invitation which is an earnest of the special interest that this University is now exhibiting in the Study of Economics.

‘A glance at the programme will indicate the increasing number of subjects of importance which come under the purview of the Association at its meetings, while the number of persons present to-day—I notice representatives from places so far apart as Assam and Travancore—and the increasing number of members of the Indian Economic Association indicate the increasing popularity of the subject and the interest which persons connected with the University, with businesses and with industries, are exercising in the work of the Association. It is realized that there is a close interrelation between economic, commercial, industrial and scientific studies, and that a close co-operation between those of us who represent different branches of work is essential for progress in any single branch.

‘The programme before us includes a visit to the Buckingham Mills and papers upon the study and teaching of economics, the housing of the poor, currency problems, the sphere of co-operative banks, the Indian tax system, and many other subjects, a range wide enough to interest the most fastidious as well as the most omnivorous student of economic and allied problems.

‘We in Madras are particularly fortunate by virtue of the fact that we have among us Dr. Gilbert Slater, the University Professor of Indian Economics, a man of wide interests, unflagging energy and facile pen, a man who by his speeches, lectures and writings has done more than any other person to further the cause and study of economics in South India. It is to him that we owe the success of the University scheme for the award of a diploma in economics. It will probably be to his advice that we shall owe the degree in Economics which, I hope, will shortly be instituted in this University.

‘We have not in Madras as in Bombay, a Sydenham College of Commerce and Economics, but we do have

here an Institute of Commerce which, I hope, will ultimately develop into a College which will be affiliated to the University when the University reaches the stage of instituting a special degree in Commerce and Economics. The Institute is at present housed in the Law College buildings, but I hope that before long it will have a habitation of its own, near the centre of the business part of this city. A Sub-Committee of the Senate of this University has already been appointed to consider *inter alia* the institution of a degree in Commerce, and, I think, I speak without fear of a majority contradiction when I state that one of the recommendations of this committee will be that the responsible authorities should set out upon a co-ordination between the work which is now being done by Dr. Slater in connection with the University and that which is now being done in the Government Institute of Commerce, and that ultimately a degree or degrees in Economics and in Commerce should be instituted in this University.

‘There is one view that I should like to hear discussed at this meeting. It is whether a course of study which includes language, economics, and commerce, could not be formulated which would give as excellent a general training as any courses which are now accepted by our Universities in India as qualifying for a degree. We are apt, I think, to consider the study of economics and commerce too much from the vocational aspect and to lose sight of the general educational training which may be obtained from this study—training which should be productive of clear thought, accurate reasoning and careful expression, and those after all are among the essentials which we look for as the result of a University training. But I anticipate probably some of the papers that we hope to listen to this morning. I shall say no more, but merely once again welcome all of you who are present this morning and who will be present at the further meetings of this conference to Madras, members, associates and visitors, and trust that your visit will do much to further the interest and advance in studies in economics and commerce in Madras and in other parts of India and go some way towards the improvement of conditions which such interest brings in its wake, improvement to the individual, improvement in social and economic conditions and improvement to the general population’.

PAPERS

The Projecting Lantern in the Teaching of Economics

BY PROF. H. W. LYONS, INDORE CHRISTIAN COLLEGE

At the last conference of the Indian Economic Association I advocated the use of the projecting lantern, and more especially the cinema, both as a teaching instrument in economics, and as an effective method of the education of the uneducated classes of India by earnest students. Dr. Slater has asked me to develop in greater detail one branch of the subject: the projecting lantern as a teaching instrument in economics. This is fundamental to the other branches, because if the lantern cannot be utilized, much less can the cinema, because of the greater difficulties of operation; if the students themselves cannot be taught in this way, they cannot instruct others.

I shall discuss the topic under three main divisions: the value of the lantern in the economic class-room; the method of teaching with it; the organization necessary to make this method practicable in our Colleges.

Most of us will acknowledge, if we are honest with ourselves, that a great deal of the education we received in the class-room was unrelated to life, and that much of the teaching we are imparting is unrelated to the life about us. This is a disturbing fact, particularly if it is true in those very departments which ought to have the closest possible connection with life. Take history, for example. We teach children, says Montessori, of bloody wars, of the clash of dynasties, the glory and the greed of princes, and we tell them this is the history of their country. We send them forth into the world to serve that country with their heads full of superficial shams and unwholesome ideas. It is as though we told them that railways were a blessing to mankind because they provided means of transportation, and then proceeded to make them memorize the names and dates of all the great railway wrecks and strikes, to feed their imaginations with stories of great catastrophes with their attendant stories of bloodshed and suffering.

So in economics. The words of Dr. C. H. Henderson, in his 'Education and the Larger Life', are particularly applicable. 'We please ourselves,' he says, 'by saying that experience is the best teacher, that the world is the best schoolhouse, that travel is the best educator. But in reality we prevent experience, we shut out the world, we disallow travel. We ask students to reflect about a world about which they know very little. We give them small perceptual knowledge—mainly what they get on holidays—and we spend nearly all their time in attempting to build larger structures than we have material for—bricks without straw.' Need I quote any other examples than those of foreign exchanges, or of costs or labour saving devices in production, as ordinarily taught to and understood by the average undergraduate in economics ?

A fundamental need—and the lack of it is a disastrous defect in our present educational system—is sense knowledge in distinction from memory knowledge. Such knowledge is inevitably bound up with concrete teaching in distinction from book teaching.

The difficulties in the way of concrete teaching in economics are obvious. The students have been developed in an educational system where the training has been of the memory rather than of the observation ; where the interests have been confined within the prescribed course, and not broadened into the full life of man as he moves about in the world. The College classes are too large, the work is too extensive, the time too limited to overcome this initial handicap. And there is constantly before the student the nightmare of the examination for which he must be 'letter perfect.' We are sure that we must know the theory', one student remarked to me recently ; 'but we must see whether the practical knowledge is of any use to us. We are afraid that our practical knowledge may be wrong, or of no use for the examination.' He is a typical product of the system.

There is, moreover, the limitation imposed by space. Many of the places of economic interest are remote from the Colleges. It is impossible for Allahabad students to study foreign trade at Calcutta ; or for Calcutta students to study the cotton industry in Bombay ; or for the students of the Punjab to understand concretely the industrial development of Madras ; or for the students of Madras to investigate the economics of the Gangetic plain. It is impossible for any of us to see concretely the revolution in ocean transportation from the opening of the Panama canal.

Sense knowledge from concrete teaching of this kind is limited in our field of economics. There is, I submit, a practicable

substitute for it in the use of the projecting lantern under proper conditions. A body of psychologists in the United States, including such men as Professor Angell of Chicago; Dr. Bakewell of Yale; Dr. Judd, Director of the School of Education, University of Chicago; Dr. Wenley of the University of Michigan; and Dr. Titchener of Cornell,—these men have made the following statement:

‘If a stereoscopic photograph’—and this applies equally to the lantern—‘of a place is used with certain accessories (as special maps which show one’s location, direction, and field of vision, etc.) it is possible for a person to lose all consciousness of his immediate bodily surroundings and to gain, for a short time at least, a distinct state of consciousness or experience of location in the place represented. Taking into account certain obvious limitations, such as lack of colour and motion, we can say that the experience a person can get in this way is such as he would get if he were carried unconsciously to the place in question and permitted to look at it. In other words, while this state of consciousness lasts it can truly be said that the person is in the place seen.’

Such an emphatic statement from men of the highest educational standing should lead us somewhat carefully to consider the possibilities of imparting sense knowledge in this manner to our students. In doing so we shall consider the projecting lantern rather than the stereographic photograph, because, while the effect of the two is similar, the lantern is the better teaching instrument. With it the pictures are large, and the attention of every one in the class can be directed by the teacher to the same point at the same time.

Permit me to take the revised B.A. course in Economics in the University of Allahabad as typical of our subject matter in the Arts Colleges of India. Such topics as the following lend themselves at once to this method of teaching:

The physical features of India. Soil erosion, the influence of forests, etc. The distribution of the world’s food crops. Ports and harbours, and ocean transportation. The commodities of commerce, the methods of handling them, etc., together with methods of extending their markets. The growth of towns. The history of money. The making of money. The organization and business of banks in their various departments. Clearing houses. Stock exchanges and their methods. The sale of Council Bills. The life history of a bill of exchange. The industries of India—agriculture, cotton, jute, iron working, mining, forestry, leather and so on. Labour saving devices, and the great inventions of the world. The organization of monopolies.

Welfare work of various kinds for workers. The whole field of health and sanitation, in which the lantern has already proven itself of great value.

This list is not exhaustive; it is only suggestive of the vast range of topics which may be taught in this manner. Let me make myself clearer by outlining two typical lectures with which to illustrate the method of teaching. It should be remembered, in the first place, that visual instruction and the showing of pictures are two different things. It is not sufficient for our purpose to throw a picture on the screen and say: 'Now in this picture you will see. . . . Next picture, please.' The pictures must be accompanied by explanation, it is true, since the students are not entering upon a guessing competition. But the explanation and the pictures must supplement each other. Because the pictures lack motion the connecting threads must be supplied by the teacher. Location must be given. Important details which may not be shown must be supplied. Lessons must be drawn. In fact the lecturer must first have his story, and the pictures must be used to illustrate or make clearer the story.

You may wish to discuss with your students the coal fields of India. The outline of an illustrated discussion might include the following:—

1. The coal areas of India, indicated by maps. This at once gives the location.

2. Coal mining historically in India, illustrated by pictures of the remains of ancient coal workings still seen throughout the coal fields, and of the slag heaps, the cupolas and the weapons made there.

3. The commencement of modern mining at the middle of the last century in the quarry mines. The soft coke industry associated with quarry mining to-day.

4. Tunnel mining with inclines. The development of methods of removing the coal from coolie handling to mechanical haulage. Associated with this is the development of improved lighting and testing for gas.

5. Pit mining, with its most recent development of deep mining. The entire process from the original borings to the filling up of the panels by sand suction is open to pictorial representation, by photographs, and ground and sectional plans.

6. The transportation of coal at the surface.

7. The by-product plants, including charts of the numerous products of coal.

8. Living conditions of the labourers,

9. The organization of coal companies, the various department, responsibilities, wages, etc. The relative position of the coal industry of India with that of the world. This can all be shown by a series of charts.

Within the coal fields to-day all classes of mining can be seen, from the most primitive to the most advanced. The romance of coal in India is waiting for the pen of the writer and for the photographer. Each phase can be so presented to our students that they will have a vivid perception of this industry so essential to the development of the great industries of India.

Or let us take another example in a realm still farther from the experience of the ordinary student, that of banking. Is it possible to make foreign bills of exchange, for instance, more real than most of us do with our best verbal explanations? I submit that the life history of a bill of exchange may be so told with pictures as to do so. The scenario might be somewhat as follows:

1. The original business transaction. The goods being packed for export. The process of transportation. Passing through the customs. Delivery to the importer.
2. The drawing of the draft.
3. The sale of the draft at the bank.
4. The transmission of the draft to the bank's agents abroad.
5. The presentation of the draft and its final payment.

In each case the entries made in the books of the transacting parties could be shown, together with the stampings upon the draft itself, affording a valuable lesson in book-keeping as well as in finance. This simple example may be developed with ever greater details until it includes pictorial illustration of the various settlements of business accounts, and the manifold methods of business which come within the study but not the experience of the student in Arts.

Do not think, however, that I am advocating a millenium in which professors and students alike will put up their pencils and note-books, allow dust to accumulate on their texts, and spend all their time in a dark room imbibing instruction and carbide fumes. If the student has not the opportunity of making notes of what he sees and hears he will be apt in time to forget it. For that reason I believe that the 'lantern lecture' as it is ordinarily understood is not our ideal. Our purpose is not fulfilled by giving a set lecture with all of the slides at one time upon any of the topics. The true method is to teach with the lantern in the class room, using the slides in place of the blackboard. That necessitates, of course, a projection room; but such an arrangement is possible by screening windows and doors and darkening walls

leaving a white square for the picture. It is such an arrangement that we have in our College.

Note making after a lecture is essential. In order that this may not be a few careless jottings but intelligible explanation, note books should be examined, and essays upon the subject matter of the lecture may be asked for; or, better still, the students may be orally examined in the course of a more or less rapid review again with the lantern slides, but with the students themselves explaining the significance of the pictures. If they can do so they are in a fair way of recognizing economic phenomena when they see them and of understanding them. It is a method of review which we have found very successful in history.

The strongest argument against the present adoption of such systematic teaching of economics with the projecting lantern, and an argument which has undoubtedly occurred to you, is the difficulty of securing suitable pictures, except in the branches of agriculture and sanitation and health knowledge. This lack of lantern slides is not so much because of the absence of individual interest, as because of the want of organized effort. Many of us have our own collections of slides, from photographs which we have been fortunate enough to secure at some time, or from English and American manufacturers. Such manufacturers have, naturally enough, made slides of English and American industries from their own standpoint. No Company has as yet endeavoured to develop the wealth of material in the industries, the ports, the markets, the museums and the archives of India, nor to prepare teaching material from the Indian standpoint.

To undertake such a task satisfactorily is beyond the power of individual Colleges, or of a small group of Colleges such as we have organized within our own University. Such efforts depend too much upon individual interests, and the opportunities of individual travel and study. The limitations I pointed to in concrete teaching by actual travel apply equally here. Our own lantern circuit is strong in its history branch where we have been able to draw on the organization of history slides perfected in England. It is comparatively weak in economics where, without organization, I have been endeavouring to accumulate slides and lecture material as time, opportunity and finances have permitted.

Granted that this method of teaching would materially help us to give to our students sense knowledge of their subject, it is surely worth our while to develop an organization in India which is conversant with the needs of the Indian Colleges. It would have to be prepared to undertake the following tasks :

1. The securing of negatives. For an individual this is impossible. But were each College commissioned to secure the negatives and lecture material from their own particular region the result would be a collection of slides valuable for all Colleges and illustrative of all India. Thus the Calcutta Colleges could supply the lectures upon jute; the Punjab Colleges upon irrigation, the Sydenham College of Commerce upon finance, and so on. Government Departments would undoubtedly assist, and manufacturers would grant free access to their factories.

2. Such an organization would have the task of securing the manufacture of positive slides from the negatives, through the agency of the lantern slide makers in India.

3. The preparation of lecture notes, and the cataloguing of slides.

4. The circulation of slides from some central point, or in different districts on a travelling library basis.

How can such an organization, if it be desirable, be effected? Must it be left to private commercial enterprise? Can it be done through a special branch or a committee of the Economic Association, which is more conversant than any other body with the teaching needs of the country; which, through its members, touches all phases of the economic development of the country; which by its permanency would ensure the securing of the material necessary from whatever source, be it private or Government; and which by its prestige and enthusiasm could carry such an educational reform through to success?

I leave that question with you for your serious consideration.

• The Study of 'Indian Economics' •

BY PROF. PERCY ANSTEY, PRINCIPAL, SYDENHAM
COLLEGE OF COMMERCE AND ECONOMICS, BOMBAY

The higher educational system of India differs fundamentally from that of other civilized countries in that it is not the natural product of the spiritual heritage or of the present genius of the people, but was extraneously imposed on them—no doubt with the best of intentions—by rulers of a race with different traditions behind it and of a very different psychic, ethical, and aesthetic stamp.

We all know the story of Macaulay's famous minute and the resultant displacement of Eastern by Western aims and methods, together with the adoption of English as the medium of instruction. The outcome of the step then taken is the India of to-day, with its scientific equipment, its material progress, and its awakened national self-consciousness. No one not obstinately wedded to the past can desire to put back the hands of the clock. At the same time it is possible, and indeed desirable, I think, to adopt a more critical attitude than did our predecessors towards the wholesale importation of a foreign educational system.

Let me say at once that the consequences, as it appears to me, have been almost wholly to the good in the sphere of the physical sciences; and that for a very simple reason. There is only one Mathematics, one Physics, one Chemistry, one Anatomy and Physiology. These aspects of universal knowledge are independent of place and time, and can therefore—nay *must*—be transplanted in their entirety, if it is a question of superseding the pseudo-sciences at which Macaulay justifiably jeered: a mythical Astronomy, for example, a fairy-land Geography (with its 'seas of treacle and seas of butter') or an art of Medicine involving external applications of pigeons' dung and internal draughts of cows' urine. But when we have to deal with humane studies and social sciences, mere 'importation', as I have ventured to call it, no longer suffices. The intellectual wares in these cases are often unsuitable for foreign consumption.

Why? Because, where man as a spiritual or a social being constitutes the subject of study, divergent national characteristics have to be taken into account. And therefore, for one country slavishly to imitate another in such matters as the teaching of Literature, History, and Economics is almost certain to prove disastrous. It deprives these studies of their application to reality as the student knows and feels it, and consequently emasculates them of their living interest and power to inspire.

Take Literature. There are, no doubt, some writers who make a universal appeal to the elemental emotions common to all mankind, and who thus belong to every age and every cultured country. Such perhaps are Homer and Goethe, Boccaccio and Cervantes, Shakespeare and Scott. But for how many illustrious names can this universal appeal be claimed without reserve, and for how many can it be claimed at all! Keats and Shelley are numbered among our greatest poets; yet on the continent of Europe they are scarcely known, except to the professed specialists in English Literature. Conversely how few Englishmen have even in translation made themselves acquainted with the masterpieces of continental literature! And—this is the significant point!—in the majority of cases even the most famous authors remain untranslated. The truth, of course, is that Literature essentially expresses an individual people's soul. Precisely for this reason it has always been recognized as one of the strongest of national bonds, one of the truest elements in Patriotism. But that very circumstance renders much of the Literature of one people unintelligible, or at any rate indifferent, to another.

Now, how far were the distinctions I have called attention to borne in mind when English Literature was introduced, as one of the chief subjects of study, in our Indian schools and colleges? Let one illustration suffice. The student of Bombay University has prescribed for him works like Milton's *Paradise Regained*, Newman's *Apologia*, Meredith's *Ordeal of Richard Feverel*. Can any one seriously maintain that books such as these, which are the product of a totally foreign spiritual and social evolution, can possibly have for the normal young Indian any genuine educative value?

What I have said about the teaching of Literature applies equally to the teaching of History and of Economics. Our business at this Conference is with the latter only, to which I shall accordingly confine myself.

Here too the mistake has been made of forgetting that we are in India. The accepted English text-books have been prescribed, regardless of the fact that the economic conditions

analysed and explained in them are not in the least those of the students' own environment; where the laws of property, inheritance, and contract entirely differ from those that prevail in England; where division of labour and free exchange are tramelled by custom; where workers' combinations are embryonic; where, in short, hardly any of the assumptions made throughout an English treatise are applicable. Did I say an *English* treatise? The most widely used text-book in India is—or was until recently—a French work, translated by an American, and adapted for the American student by the superposition of American illustrations on the top of the French ones; both of course being equally irrelevant to conditions in this country! Such was the pabulum on which the young Indian was fed.

It may, however, be objected that there are after all universal laws—or, if you prefer the term 'generalizations'—in Economics, and that the Indian student may quite conveniently learn these from Marshall, Nicholson, or Gide. The existence of universal economic laws has been the subject of much controversy, ever since their validity was challenged by the Historical School; and certainly to have one's lot cast in India does not lessen the difficulty of accepting even those fundamental axioms which were supposed to be rooted in human nature itself and from which the older Economists derived all their other propositions: the axiom, for example, that every normal man spontaneously seeks to improve his material position and prospects; that he will therefore be induced to put forth additional efforts by the offer of additional rewards; and that the dread of unemployment and loss of personal independence may be counted on to keep him disciplined to his task. In a society where the attainment of a higher standard of living is subordinated—not exceptionally but habitually—to other considerations, and where the family and caste system enable the individual to face dismissal with comparative equanimity, the great hedonistic principle requires not merely tinkering modifications here and there; it ceases to be serviceable altogether.

However, I do not desire to commit myself one way or the other in the dispute between those who affirm and those who deny that we are warranted in deducing general principles from certain psychological axioms. It is enough for me that these principles manifestly do not operate *in vacuo*. They are conditioned at every turn by the framework of social institutions. The classical Economists themselves fully recognized this. In our own day a purely abstract theory of Economics has indeed

been attempted, in terms of bare mathematical formulæ. But nothing of the kind is found in Adam Smith or Ricardo. On the contrary, few Economists are more obviously moulded by their environment. The greater part of 'The Wealth of Nations' consists of historical and descriptive economics, from which the author draws his generalizations one might almost say 'incidentally'. As for Ricardo, though he is commonly reputed to be the most abstract of thinkers, his interests were essentially of a concrete order. The inflation of the English currency owing to the mistaken policy of Government; the effect of the English corn-laws in artificially keeping up the price of bread and consequently, as was thought, the wages of labour and the cost of production; the undue enhancement of the rents of the English landed class by the extension of cultivation to inferior soils; these were the practical, semi-political questions that engaged his attention and gave an inevitable bias to his theoretical conclusions.

It is in fact an error to imagine that the treatment of Economics from a national point of view originated with Frederic List. In his 'System of a National Economy' certain new points of *state policy* are no doubt set forth and stressed. But the *scope* of his treatise is no more distinctively German than Adam Smith, Ricardo, Malthus or Mill are distinctively English. An Economist may be ever so cosmopolitan-minded; in the nature of things he is compelled to interpret economic phenomena primarily as he finds them in his own surroundings.

Now, if this is so, the study of Economics in India must needs have been radically vitiated by the unqualified adoption of English text-books, prepared for students differently circumstanced, and by the obsequious arrangement of the syllabuses on English models.

No wonder that a protest was at length evoked. To the late Mr. Justice Ranade belongs, I believe, the credit of being the first forcibly to point out that Indian problems, not being identical with European, clearly demand special treatment. His arguments were so irrefutable that a partial reform was at once introduced. And since his day we have had courses on what is called 'Indian Economics' added to the curriculum of our Universities.

'Indian Economics'! The term sounds passing strange to the European, who has never heard of 'English' or 'German' or 'Italian' Economics. What does it stand for?

Well, if we examine the approved books that bear this odd title, what we find is that they consist of detached discussions on

the land system of India, her currency and banking arrangements, her organization of transport, her finances, and the peculiarities of her labour and capital. The writers are often men of marked ability. They collect much useful information backed by facts and figures from official and other sources, and they eloquently put the case for certain Indian demands—such as a gold coinage or protective duties. But the scientific value of their work is impaired by the fact that neither their descriptions, their data, nor their polemics are correlated with theoretical analysis. Hence the various topics are handled with a curiously uncertain touch. Not seldom the standpoint implied in one chapter seems to be abandoned in another, and even if the inconsistencies are only apparent, the reader is unable to recognize this, because underlying principles are not adequately explained and applied. Frequently therefore it looks as if the author were

‘still standing on one leg, still sitting without a chair,
‘still feeding, like Tityrus, his steeds in air.’

The student, on his side, is put to a two-fold disadvantage. He passes in a desultory manner from one topic to another, and is left without any systematic explanation of the general forces underlying the multiple manifestations of economic activity. Thus he misses the conception of national economy as a coherent whole. While studying ordinary economic theory, on the other hand, he fails to grasp the true significance of principles, for want of apposite illustrations that would enable him to apply them to his own experience.

And now consider the effect of introducing Indian Economics as a separate branch of study in the curriculum of some of our Universities. The unfortunate results of this policy can be clearly seen if we take as an instance the procedure followed at Bombay. There the Pass candidates for the B.A. in History and Economics—that is to say, the vast majority of those who go in for Economics at all—have prescribed for them only a single paper on ‘Political Economy’, which, since the students are new to the subject, is necessarily of a quite elementary kind. The Honours candidates take an additional paper on ‘Indian Economics’. And the M.A. candidates, in addition to yet another paper on Indian Economics, covering the same ground as the one set at the B.A. but presumably supposed to be stiffer, take half a paper on ‘The History of Economics’—by which the University, in its confused way, means ‘The History of Economic Doctrines’, together with half a paper on ‘Economic History including the History of Commerce in Europe as outlined by Gibbins’!

What then does it all come to? In the first place, *the greater number by far of young Indians who study at the University have no occasion to learn anything whatsoever about the economic condition of their own country.* In the second place, *no student, so far as theory is concerned, ever advances beyond the commonest rudiments.* To him the works of Marshall—except for the little volume called ‘*The Economics of Industry*’—of Pigou, of Irving Fisher, of Clark, of Veblen, of Edgeworth, of Boehm-Bawerk and of all the other genuinely original thinkers in the realm of modern Economic Science who have given us deep and subtle analyses of the complex problems of our time, remain sealed books! It is only in connexion with the degree in Commerce that any paper in Advanced Economic Theory is to be found.

Such then is the state of affairs in regard to the study and teaching of Economics at one of our great centres of learning. And let no one say that in practice teachers or examiners have it in their power to remedy the deficiencies of the curriculum. The teacher is bound in the main to shape his course conformably with the lines laid for him. He may, to be sure, while lecturing on Western economic conditions, here and there, of his own accord, contrast them with those prevalent in India, but the time at his disposal will scarcely permit him to do so on an extensive scale: and in any case mere casual references are no substitute for thorough and methodical study. Even the examiner dare not indulge any propensity he may have to infuse his questions with some ‘local colour’. He is soon reminded—justly enough—by his colleagues that it is unfair to expect even a bowing acquaintance with the facts of Indian economic organization from students who have been definitely told that the little Nicholson will see them through.

‘If Indian Economics’ and ‘Ordinary Economics’ are to continue to be taught in watertight compartments as distinct topics and are to continue to be taken by different classes of students, it would be better to make the former the elementary and the latter the advanced subject. For the proper scientific method is to proceed from the familiar to the unfamiliar. I however venture strongly to urge that Indian Economics as such should disappear altogether, and I am glad to know that the University of Madras has no such subject in its curriculum. Every paper set here postulates a knowledge of Indian conditions, and at the same time a knowledge of economic theory: the dividing line between different types of examination turning, as it ought to do, not on whether the questions have to do with India or not, but simply on whether they are easy or difficult

and are therefore appropriate for Pass or for Honours candidates respectively. I am told that other Universities also are dropping the false antithesis I have been criticising; and I therefore hope that the day may not be far distant when the very name of 'Indian Economics' will sound as uncouth, as infelicitous and as misleading to people in this country as it sounds elsewhere.

If the present paper contributes in some degree to hasten the coming of that day, it will have achieved its object.

The Study and Teaching of Economics in India

BY JOHN MATTHAI

The study of Economics in a University generally covers, or ought to cover, three stages or parts—(1) Post graduate—for training in research, with or without a degree, (2) Under graduate—preparing by instruction and examination for a degree, and (3) Extra graduate—for the benefit of persons who as a rule are not eligible for admission to the University, by the provision of diplomas.

The three are vitally connected with each other. Without a well developed post-graduate department, there will be no real, creative life in the University. It is the post-graduate work of the University which sets the tone of the whole intellectual life of the University. A regular under-graduate course is necessary for equipping teachers and advanced students, and it also keeps alive the importance of the study in the minds of students generally. An extra graduate course helps to extend the scope of the University and it brings into the University a very valuable practical element, which is nowhere of greater importance than in the study of the social sciences.

I. Post Graduate Work

The essentials of post graduate work are—

- (1) Expert direction.
- (2) An atmosphere of fellowship.
- (3) Adequate stipends.
- (4) A well-equipped library.
- (5) Facilities of publication.

(1) Every University should aim at having at least two men of sufficient reputation and experience in research to direct post-graduate work. Where the direction is in the hands of one man, there is apt to be a narrowing of interests—an undue insistence on particular points of view—which is a danger in the case of a many-sided study like economics.

(2) There should be a sufficient number of advanced students to form a real fellowship—not less than half a dozen.

(3) Whether it is possible to have a sufficient number of advanced students will depend largely on the number and amount of stipends available. It is necessary to aim at getting the best men possible. For that stipends should be offered equal in amount at least to the initial salary in the Provincial Civil Service. Also, an advanced student must have a reasonable chance, if he succeeds in doing really good work, of a sufficiently attractive career as a lecturer or professor. This will to a considerable extent depend on whether there is provision for a full under graduate course in Economics in the University. So long as Economics finds no place except as part of a larger course, so long the best men will be turned away from advanced work for want of opportunities of subsequent employment.

(4) An Economic library consists for the greater part of standard books and Government publications. It would be a good idea if in a city like Madras, the University and the Government, especially the Development Departments, such as Agriculture, Industries and Co-operation, could unite in organizing a Central Library of Economics for their common use.

(5) Publication is essential to research partly as a means of diffusing knowledge and attracting criticism and partly to provide the student with the incentive of reputation. Works of purely local interest and of moderate excellence may be published locally. But where a student has done work of at least respectable quality on a subject of general interest or of exceptional quality on a subject of local interest, he should be helped to find an English publisher, or an Indian publisher accustomed to doing business abroad. In the case of an English publisher, arrangement should be made for a cheap Indian edition. This is one of the ways in which we in India might help in the creation of a fraternal feeling among the Universities of the Empire.

II. *Undergraduate Work*

The study of Economics will never come into its own in India until a full undergraduate course is organized leading to a separate degree in Economics. Such a course is necessary (1) to impart an adequate knowledge of Economics and Political Science, in view of the coming industrial and political changes (2) as an evidence of the importance which the University attaches to the study of Economics, (3) to provide men of sufficiently intensive training for advanced work, and (4) to create

suitable openings for men who have done successful work as advanced students.

The difficulty at present is a practical difficulty, namely, the lack of teachers. But as long as the University makes no separate provision for the study of Economics, there will be little inducement for colleges to entertain the necessary staff or for men to train themselves as teachers. We cannot wait for a separate degree till a sufficient staff has been first secured, because in reality they work mutually as cause and effect.

III. *Extra Graduate Work*

A diploma course stands somewhere between a vocational and a liberal course of study. It must bear a definite relation to the particular profession or line of work which the student follows or desires to follow. At the same time it is not intended to train him in the technique of the profession. If this view is right, a diploma course will probably fulfil its object best if it is split up into separate courses dealing with the Economic aspects of particular lines of work instead of being organized as a single general course. The following separate courses may be suggested—(a) Co-operation, (b) Social Service, (c) Commerce—each leading to a certificate of proficiency. This will not necessarily mean a corresponding increase of staff, because some of the subjects will be common to the three courses.

The great danger with regard to the study of Economics not merely in India but in every country is that it is apt to get out of touch with the real life of the country. In Natural Science the student's workshop is the laboratory. In Economics his workshop is the community itself. And nothing is of greater importance than to keep him in close relation to the growing life of the community. The following means may be suggested to secure this end :

(1) Common Seminars for undergraduate and diploma students.

(2) University Clubs for Social Service.

(3) An Economic Society in the city open to senior students, business men and others interested in Economic questions for periodic discussion.

(4) Appointment of business men to the Senate and to the Board of Studies. Heads of the Departments of Agriculture, Industries, Co-operation and Fisheries to be ex-officio on the Board of Studies.

(5) Lectures by business men on matters connected with their business.

(6) Excursions and practical investigations during the long vacation.

It is of the utmost importance for the University to secure the co-operation of leading representatives of industrial and commercial interests. It is not merely their advice and assistance in organizing courses of study, etc., but their financial support that we want. And that support, the University is entitled to claim, if it sets about its work properly, almost as a matter of right.

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THE UNIVERSITY OF CHICAGO
LIBRARY

'Organization of the studies and teaching of Economics in India'

BY G. SATYANARAYANA MURTI, M.A., PROFESSOR OF HISTORY
AND ECONOMICS, FINDLAY COLLEGE, MANNARGUDI.

(Abridged)

I. Economic Libraries

After dealing with Economic Libraries in England and America, Mr. Satyanarayana Murti wrote :—

I do not know if in this extensive land of ours there are any economic libraries worth the name except a few hundreds or tens of hundreds of volumes (text-books by standard and minor writers, a few periodicals of both continental and Indian fame and a big unanalysed and ill-classified heap of government publications and commission reports all counted together) even in the University Libraries. A glance at the catalogue of our Madras University Library (both the original and the recent supplement) will show that not more than six or seven pages are devoted to the names of periodicals—not all of economic interest—those of economic interest can be counted on one's finger's ends. The number of standard works on Economics (general and Indian) has perhaps the same tale to tell. As for the other University Economic libraries, I frankly confess I have not seen them or heard much of any special interest about them. The economic libraries of some seven colleges affiliated to our Madras University I personally had the pleasure of seeing, and they do not even approach the ideal of Europe and America either in the matter of the number of standard books and periodicals or in any outward signs of their having been used by any body except perhaps the lecturers and a few others in charge of the subject (though of course in a few cases I have to borrow a penknife and cut the still uncut pages). A government college in the south had not 'the Economic Journal' until very recently and the college from which I come began to import 'the Economic Journal' only since last year. As for private libraries of Professors of Economics, about four years ago I had seen one of a Government College professor and the other of a native state college professor. The library of the latter, though it cannot of course stand com-

parison with that of a Professor Seligman of the Columbia University, is by far the best of the private economic libraries in Southern India and I must acknowledge that I myself and our humble College library, Economic section, at the Findlay College, Mannargudi, have derived not a little inspiration and suggestion from it with regard to an average equipment of books for coaching our B.A. students for the University Examinations. As for the big Madras University library and the other Metropolitan College economic libraries, I am given to understand—I am open to correction if my information is wrong—that very few people use the books and periodicals there and perhaps fewer people know how to make use of the valuable information stored in the few standard works, periodicals and government reports of economic and statistical importance. I shall be glad if the University Economics professor and his able staff would organize a series of special demonstration lectures as to a rational use of economic libraries not simply in the City of Madras to the fortunate few economic students here but even in some select localities in the moffusil.

II. Economics in the University of Madras.

Mr. Satyanarayana Murti recommended as follows :—

(1) The economic research machinery and especially the staff (and duties) of the University Professor of Economics should be enlarged. The system of University lectures should be improved.

(2) The Madras University, with Government aid if necessary, should insist on the method recently adopted by the Mysore University in introducing simple Economics into the high school classes. Some special insistence must be placed on Indian Economic Geography by making it a compulsory and examinable subject in Group A or C; for there is no use of having this useful subject in that all comprehensive but really hollow Group B.

3. Economic History in Group iii Intermediate should be separated from Political History of England and given an independent status along with Economic History of India.

(4) With regard to the B.A. (Pass and Honours course), separate papers, one on General Economics Theory and the other on Indian Economics should be set by the University and suitable syllabuses framed accordingly. The University should take early measures to have suitable text-books produced, text-books written according to the syllabus.

Books in several volumes, two or three like those of a Nicholson or a Taussig or Bastable should be written with special reference to Indian conditions and in a way adapted to meet the real needs of the Indian Universities. The University might depute a Committee of experts having much leisure and freedom from other worry to do this useful work.

(5) The dissertations and researches of University students and University Professors should be collected and bound into volumes to be placed at the disposal of every affiliated institution. A part of this research staff might usefully be asked to be an itinerant body, at least for a fraction of the year going from college to college and making practical demonstrations by delivering lectures on the subjects and results of their research.

DISCUSSION

The use of the Lantern

The HON. and REV. E. M. MACPHAIL said, in relation to Professor Lyons' paper, that if the Indian Economic Association could take the initiative in developing the use of the lantern in the teaching of Economics, it would be conferring a great boon. Indian students were greatly assisted whenever the teacher could give them visual contact with the things discussed, as by the exhibition of actual cheques and bills of exchange. Colleges could not give them the advantages of foreign travel, but they could be provided with good lantern slides and a satisfactory apparatus, and this would be extremely valuable.

PROFESSOR ANSTEY supported the last speaker, but said that care should be taken lest the use of the lantern be regarded as an adequate substitute for actual observation, which, when possible, was the most effective means of studying concrete economic facts. He suggested that the Executive Committee of the Association should be asked to formulate definite recommendations in the direction indicated by Professor Lyons.

PROFESSOR KALE moved and PROFESSOR SHAHANI seconded a resolution to this effect, which was carried unanimously.

The Study of 'Indian Economics'

DR. HAROLD MANN opened the discussion on Professor Anstey's paper. He said that while he was a strong advocate of the separate study of Indian Economics, he did not feel that there was any real difference between his position and Professor Anstey's. He held, with Professor Anstey, that the study should start with the actual life of the people of India, but while Professor Anstey called this 'Economics' he called it 'Indian Economics.'

RAO BAHADUR K. V. RANGASWAMI AYYANGAR, while holding that the study of Economics must start with reality, deplored the tendency in the teaching of Indian Economics to be content with the accumulation of uncoordinated facts, and the lack of endeavour to draw inferences and interpret phenomena.

MR. P. RAMANATHAN urged that the study of Economics should be combined with practical action.

PROFESSOR V. G. KALE said that the prevailing methods of Economic study in India were deplorable. Students passed their examinations by cramming summaries, and the teachers also had prepared themselves for teaching by similar means. The fault was partly in the courses and examination papers of the Universities; and the reform needed was that the course of instruction should train students to draw their own conclusions from facts presented to them.

PROFESSOR ARTHUR BROWN said that the teacher was not a free agent. Much as he might like to teach on the lines advocated by previous speakers, he had to face the fact that what his students wanted was, not to conduct original investigation, but simply to pass their examinations and get their degrees.

MR. T. K. DORAISWAMI AYYAR said that it was true that the psychological factor was an important one, and that Indian psychology differs from European; but nevertheless there was a distinct tendency in Indian cities to approximate in economic conditions and relations to the West; and in the villages the difference between India and Europe was essentially a difference between medieval and modern conditions. The extra importance to be assigned to the force of custom in India was not so great as some maintain. The special difficulty for the Indian teacher of Economics is that he should be familiar with both sets of conditions.

REV. FATHER CARTY, S.J., expressed the view that the true line of division should not be between General and Indian Economics, but rather between the pure science which was of the higher cultural value, and its more practical and technical applications. He recommended that the former should predominate in pass courses, and that opportunity to specialize in the latter should be provided in Honours courses.

MR. VENKATARANGAYYA supported Professor Anstey's plea for doing away with 'Indian Economics' as a separate course of study.

DR. GILBERT SLATER said that the discussion showed a general agreement among all the speakers with regard to the sort of study to be aimed at, but some difference with regard to the means of reaching the end. He agreed with Professor Anstey in thinking that it is better to have no separate course of 'Indian Economics', but to require that all the teaching should be based on a concrete study of Indian life, and be directed primarily to the interpretation of Indian life. He suggested that possibly the appearance of this curious subject 'Indian Economics' in University Calendars was due to the excessive modesty of the

Indian scholars and professors. When Adam Smith worked upon a French foundation he did not call his book 'The Wealth of Britain', but 'The Wealth of Nations'; when List took up the study of the English economists from a German standpoint he called his book 'National' not 'German' Economics. Similarly in Italy, Russia, U.S.A., and every country *except India*. But the Indian writer has shrunk from challenging comparison with writers of other countries of established reputation. He has looked about for a little sphere of his own, and has produced the numerous text-books of 'Indian Economics', when what is really necessary is that Indians, like writers of other nations, should attempt the re-interpretation of ordinary human life starting from their own experience and observation.

PROFESSOR ANSTAY, in reply, said that the difference between his position and that of Dr. Mann was real, not verbal. He held that the mere study of detailed and uncorrelated facts, in Indian villages or elsewhere, had in itself no value.

Second Day

MORNING SITTING

Problems of Poverty and Methods of Social Betterment.

The chair was taken by the HON. and REV. E. M. MACPHEAIL. THE CHAIRMAN in opening the meeting remarked that Political Economy had been declared to be 'a dismal science' which cared nothing for the happiness of the individual. The papers before the Association that morning showed that however justified such an accusation might once have been, it was so no longer; but, on the contrary, its investigations were directed towards promoting the prosperity and happiness of the most unfortunate classes.

PAPERS

The effect of rise of prices on Rural Prosperity

BY HAROLD H. MANN AND N. V. KANITKAR

The effect of a rise in prices on the condition of the rural population in India has been a matter of very serious difference of opinion. Some authorities have held that, seeing that the produce of the land was the source of the prosperity of land holders and village people generally, the fact of their being able to obtain a higher price for it would obviously lead to their general economic advantage. Others, equally well informed, have stated that whatever would happen in theory, in practice every rise in price has meant more difficulty and more poverty in the rural areas. The matter is really of great importance, because, among other reasons, in a country of periodic land settlements such as occur in India, changes in price have always been considered a valid factor in determining changes in land assessment. 6378

There are many methods of making a study of the effect of a rise in prices on rural prosperity. But the series of village studies in Western India which we have made in recent years seems to give us data for tackling the question at close quarters. These studies all relate to villages in Western India, and the first of them was published in 1917 under the title of 'Land and Labour in a Deccan Village.' The method of study in each case has been similar. The people of the village have been studied family by family. The sources of revenue have been ascertained for each family, as well as the necessary expenditure, including the payments of interest on debt which they had incurred. To complete such a balance sheet, family by family, naturally involved a certain number of assumptions as to the gross crop per acre, and hence the gross revenue from land, and also the minimum cost of living and clothing at the time when the study was made and at the prices prevailing. If the assumptions made be correct, then the survey affords a means of ascertaining the economic position of every family in the village, and also of the effect which any change in prices or other conditions would make on this position. It only requires, in fact, a

recalculation of the family data which we already possess, on the basis of a new level of prices, to enable a view to be obtained of the economic effect of any rise which may have occurred.

In attempting to carry out this scheme of utilizing our family data for the study of the present problem it may be stated that we have used the figures in hand for two Deccan villages. One of these is Pimpā Soudagar, an account of which has been already published, and which is situated ten miles west from Poonā. The other is Jategaon Budruk, a somewhat larger village about twenty-five miles east from the capital of the Deccan. In the case of nearly every family in these two villages we have considered what would be the effect (1) of a general 50 per cent rise in prices without rise in wages, and (2) of a general fifty per cent rise in prices with a corresponding (50 per cent) increase in wages at the same time.

In determining what meaning was to be attached to the term 'a general rise in prices', we have made it include a rise involving all types of materials used by the village. Two general expenses had, however, to be excluded. On the one hand, land revenue, being fixed by a thirty years' settlement, cannot rise and must be considered to remain constant. On the other hand the interest charged on loans in the village has not altered materially as a result of the rise of price of articles or of money in the great centres. The only reason we can think of for this is that the rate of interest was already so high—the average for the two villages is 19½ and 23 per cent respectively—that it can hardly rise further and is hence independent of moderate rises in the value of money elsewhere. But except for land and money, the price of every commodity was assumed to rise to an equal extent, and to stand at a level 50 per cent higher than that previously occupied. The results have been exceedingly interesting, and we venture to lay them before the conference.

To take the village of Pimpā Soudagar first, we may say that when the original study was made we divided the 103 families in the village for which we had data into three groups. Group I consisted of families which were able to maintain themselves, at a standard of efficiency and respectability which they considered satisfactory, from the income from land and cultivation alone. Group II consisted of those who were, at their own standard, still in a solvent condition, though income from land had to be supplemented by income from their labour to make them so, while Group III included all those families who could not maintain themselves, at their own standard, even from income from land combined with income from labour, without going

into debt. The economic position, in other words, of Groups I and II was sound : that of Group III was unsound.

The economic position of the village families under these groups was as follows in 1916 :—

Group	No. of families.	No. of persons	Income from		Total Income.	Necessary expenditure.	Interest.
			Land.	Labour.			
			RS.				
I ..	8	25	1,699	232	1,931	1,254	54
II ..	28	136	1,740	6,710	8,450	6,890	652
III ..	67	319	4,899	6,169	11,068	16,987	1,809
Total ..	103	510	8,338	13,111	21,449	25,131	2,515

Taken group by group we have in summary :—

1. In Group I (solvent from land only) there was an excess of Rs. 677 per annum on eight families, or Rs. 84·6 per family per annum.
2. In Group II (solvent from land and labour) there was an excess of Rs. 1,560 per annum in twenty-eight families, or Rs. 55·7 per family per annum.
3. In Group III (insolvent) there was a deficit of Rs. 5,919 per annum in sixty-seven families, or Rs. 88·4 per family per annum.

On the whole on the 103 families for which we have data there was a deficit of Rs. 3,682, or Rs. 35·7 per family per annum.

Let us see what would be the effect of a rise in the cost of commodities of 50 per cent. This means, of course, a rise in the income from land, and a rise in expenditure on all items except labour and interest. The immediate effect is, dividing the population into the same groups as before, to give us results as follows :—

Group.	No. of families.	No. of persons.	Income from		Total Income.	Necessary expenditure.	Interest.
			Land.	Labour.			
			RS.	RS.	RS.	RS.	RS.
I	10	30	3,233	418	3,651	2,423	318
II	6	32	1,683	1,080	2,763	2,303	238
III	87	448	7,608	11,667	19,275	31,056	1,959
Total	103	510	12,524	13,165	25,689	35,782	2,515

Taken group by group we have in summary—

1. In Group I (solvent from land only) there was an excess of Rs. 1,228 per annum on ten families, or Rs. 122·8 per family per annum.
2. In Group II (solvent from land and labour) there was an excess of Rs. 460 on six families, or Rs. 76·7 per family per annum.
3. In Group III (insolvent) there was a deficit of Rs. 11,781 per annum in eighty-seven families, or Rs. 135·4 per family per annum.

On the whole on the 103 families for which we have data there was a deficit of Rs. 10,093 or Rs. 98 per family per annum.

These results are very striking. The general effect of the rise of prices on the village as a whole is disastrous, but it has benefited a few families, which depend very largely on their own labour on their own land, *and who have very large debts*. The two families which have risen to the first group, show the following figures before and after the rise in prices :—

	Income from		Total.	Necessary expendi- ture.	Interest.	Excess of income.
	Land.	Labour.				
	RS.			RS.		
Before rise in prices.	457	186	613	540	264	73
After rise in prices. . .	685	186	871	650	264	221

These two families therefore rise from the second to the first group.

But while the effect has been beneficial in these two cases, a very large number of families are driven from the second group into the insolvent class. One family rises from the third to the second group, because nearly 80 per cent of its income is derived from land and also because of large interest commitments. It is curious to find the possession of large debts being a source of economic strength under the changed conditions!

The effect of the rise in prices on the position of the six families now belonging to Group II is shown in the following table :—

Rise in Prices	Income from		Total income.	Necessary expenditure.	Interest.	Excess of Income.
	Land.	Labour.				
	RS.	RS.	RS.	RS.	RS.	RS.
Before	1,122	1,080	2,202	1,674	235	528
After	1,683	1,080	2,763	2,303	235	460

Group III (or the insolvents) becomes very much larger as a result of this rise in prices. If one family leaves this group twenty-one descend to it, and among these twenty-one families a total excess of income in the year of Rs. 1,028 becomes a deficit of Rs. 901. The effect of the rise on the condition of the sixty-six families which originally belonged to this group is equally disastrous, and an original deficit of Rs. 5,914 per annum now becomes Rs. 10,207, being an increase of 72·5 per cent.

Taking the village as a whole, an original deficit of Rs. 3,682 in all the families in the village taken together, has increased in consequence of the rise in prices to Rs. 10,093 or by 174 per cent.

So much for the effect of a rise in prices without a rise in wages. It may enrich a few, but it is disastrous for the village as a whole. But if wages rise also to the same extent as prices, what will be the economic result? The following table shows the figures :—

Group.	No. of families	No. of persons.	Income from		Total income.	Necessary expenditure.	Interest.
			Land.	Labour.			
			RS	RS	RS		RS
I	10	30	3,233	627	3,860	2,536	313
II	27	140	2,541	9,974	12,515	10,086	508
III	66	340	6,735	9,109	15,854	23,871	1,689
Total	103	510	12,509	19,710	32,229	36,493	2,515

Taken group by group we have in summary :—

1. In Group I (solvent from land only) there was an excess of Rs. 1,324 per annum on ten families, or Rs. 132·4 per family per annum.

2. In Group II (solvent from land and labour) there was an excess of Rs. 2,429 per annum on twenty-seven families, or Rs. 90 per family per annum.
3. In Group III (insolvents) there was a deficit of Rs. 8,017 per annum on sixty-six families, or Rs. 121·5 per family per annum.

On the whole, in the 103 families for which we have data, there was a deficit of Rs. 4,264, or Rs. 41·4 per family per annum.

The position now reached is, of course, as would be expected, not unlike that originally existing. There were thirty-six families in a sound position originally; now there are thirty-seven. Two rise from the second to the first group on account of increased income from land, and the stationary expenditure on interest; and one family rises from Group III to Group II for the same reasons.

The ten families now in Group I have improved their position. Formerly they had an excess of income of Rs. 750; now this excess is Rs. 1,324. There has, in fact, been a rise of 76 per cent. That is to say the excess has increased in greater proportion than the rise in prices and wages. The twenty-seven families in Group II have also improved their economic position. Formerly they had an excess of income of Rs. 1,586; now this excess is Rs. 2,429. There has, in fact, been a rise in the net profit per annum of 53 per cent, or again, in slightly higher proportion than the rise in prices and wages. The net loss of the sixty-six families now insolvent (Group III) according to our standard has increased from Rs. 5,914 to Rs. 8,017, or by nearly 36 per cent. This is very large, but the increase in loss is not quite in the same proportion as the rise in prices.

Generally, we may draw the following conclusions with regard to the effect of a rise in prices and wages to the extent indicated on the economic condition of the population of the village of Pimpla Soudagar :—

1. If prices rise 50 per cent without a rise in wages we find as follows :—

- (a) The people who depend on land alone, *which they work with their own labour*, and who have sufficient land to maintain them in a sound position before the rise in prices, are much better off.
- (b) Where there is a combined dependence on land (worked by themselves) and on labour, and where there was a sound economic position before the rise in prices, the position depends solely on the proportion

between the income from self-worked land and that from labour.

- (c) The man who benefits most is he who works his land by labourers, in other words, the non-cultivating proprietor.
- (d) The general effect on the village population is disastrous, and the annual deficit of the families belonging to the village, added together, increases enormously.

II. If prices rise 50 per cent, accompanied by a corresponding rise in wages, we find as follows:—

- (a) The people who depend on land alone, which they cultivate with their own labour, and who had sufficient land to maintain them in a sound position before the rise in prices, are again much better off.
- (b) Where there is a combined dependence on land (worked by themselves) and on labour, and where a sound economic position existed before the rise in prices, the position is still improved, and the improvement is slightly greater than the rise in prices.
- (c) The non-cultivating proprietor is not appreciably affected, except in so far as he has large debts.
- (d) The general effect on the village population is to lower their economic position. The annual deficit of the families in the village taken together, has been increased by 16 per cent.

III. With a rise of prices, whether wages increase or no, two general results seem to ensue:—

- (a) The gulf between the solvent and the insolvent classes tends to widen. The vast majority of the people who were solvent, especially if they were solvent from land, seem to become more solvent! the insolvent previously become in most cases more insolvent.
- (b) As interest has not risen with rise in prices, those who had large debts incurred previously have suffered less in proportion than the others.

So much for the results obtained by a study of the families in Pimla Soudagar. But that village has been described as not typical because a considerable proportion of the population obtain their livelihood by working at Poona or Kirkee, which is close by. It was hence of importance to investigate a place, otherwise of a similar character, but far from any large labour centre. The village of Jategaon Budruk was chosen, being twenty-five miles

from Poona, and having no large non-agricultural demand for labour anywhere near. Here there was a population of 732 in 147 families, and the results of our inquiries were treated in exactly the same way as already described for Pimpā Soudagar.

The economic position of the village families, divided into the same groups as before, was as follows in 1917, that is to say before the recent rapid rise in prices began.

Group.	No. of families.	No. of persons.	Income from		Total income	Necessary expenditure.	Interest
			Land.	(Labour.			
			RS	RS		RS	
I	10	43	3149	1,507	4,656	2,338	210
II	12	25	250	1,218	1,468	1,245	66
III	125	664	12,408	5,826	18,234	35,393	6,479
Total	147	732	15,807	8,546	24,353	38,976	6,755

Taken group by group we have in summary :—

1. In Group I (solvent from land only) there was an excess of Rs. 2,318 per annum on ten families, or Rs. 231·8 per family per annum.
2. In Group II (solvent from land and labour) there was an excess of Rs. 218 per annum on twelve families, or Rs. 18·1 per family per annum.
3. In Group III (insolvent) there was a deficit of Rs. 17,164 per annum on 125 families, or Rs. 137·3 per family per annum.

On the whole, on the 147 families for which we have data, there was a deficit of Rs. 14,628, or Rs. 99·5 per family per annum.

It is at once obvious that this is a village where the original difference between the more wealthy classes of the village and the poorer inhabitants is much greater than in the case previously studied, and also that the proportion of insolvent families is much greater also.

Let us see what would be the effect of a rise in the cost of commodities by 50 per cent, without rise in wages or in interest.

This is shown in the following table :—

Group.	No. of families.	No. of persons.	Income from		Total income.	Necessary expenditure.	Interest.
			Land.	Labour.			
			Rs	Rs	Rs	Rs	Rs
	12	58	6,088	1,507	7,595	4,652	402
II	3	4	141	227	368	343	24
III	132	670	17,174	6,809	24,283	49,952	6,329
Total	147	732	23,703	8,543	32,246	54,947	6,755

Taken group by group we have in summary :—

1. In Group I (solvent from land only) there was an excess of Rs. 2,943 per annum on 12 families, or Rs. 231·8 per family per annum.
2. In Group II (solvent from land and labour) there was an excess of Rs. 25 per annum on three families, or Rs. 8·3 per family per annum.
3. In Group III (insolvent) there was a deficit of Rs. 25,669 on 132 families, or Rs. 194·4 per family per annum.

On the whole, on the 147 families for which we have data, there was a deficit of Rs. 22,701, or Rs. 154·4 per family per annum.

The position revealed by these figures is extraordinarily similar to that shown in the village previously stated. There were twenty-two families in a sound position originally, now there are only fifteen. Two families rise from the third to the first group on account of the increased income from land, and the stationary expenditure on interest, which forms proportionately a very large part of the total expenditure. A very large proportion (75 per cent) of those in Group II fall into the insolvent class; this would perhaps be expected, as they depended for their solvency largely on the income from labour.

The twelve families now in Group I have improved their position. Formerly they had an excess of income of Rs. 2,277; now this excess is Rs. 2,943. There has, in fact been a rise of 29 per cent, which though less proportionately than the actual rise in prices, is substantial. The three families remaining in Group II have actually lost economically by the rise in prices, and barely maintain their solvency. The net loss of the remainder (Group III) or the insolvents according to our standard has increased by 51 per cent—a proportion practically the same as that of the rise in prices.

Taking the village as a whole, the effect of a rise in prices of 50 per cent without a rise in wages has been to convert an original deficit of Rs. 14,628 into a deficit of Rs. 22,701, or an increase of 55 per cent. The proportion is not so large in the case of this village as in that previously studied, on account of the larger proportion of the income due to the self-working of the land, and also on account of the very much greater indebtedness of the village.

So much for the effect of a rise in prices without a rise in wages. If wages rise also to the same extent as prices, the economic result is shown by the following table :—

Group.	No. of families.	No. of persons.	Income from		Total income	Necessary expenditure	Interest
			Land	Labour			
						Rs.	Rs.
I ..	12	58	6,088	2,260	8,348	4,704	402
II ..	13	29		2,117	2,490	2,127	90
III ..	122	645	17,242	8,420	25,662	48,231	6,263
Total ..	147	732	23,703	12,797	36,500	55,062	6,655

Taken group by group we have, in summary :—

1. In Group I (solvent from land only) there was an excess of Rs. 3,644 per annum on twelve families, or Rs. 303·7 per family per annum.
2. In Group II (solvent from land and labour) there was an excess of Rs. 363 per annum on 13 families, or Rs. 27·9 per family per annum.
3. In Group III (insolvent) there was a deficit of Rs. 22,569 per annum on 122 families, or Rs. 185 per family per annum.

On the whole, on the 147 families for which we have data, there was a deficit of Rs. 18,562 or Rs. 1,263 per family per annum.

The general conclusions are, therefore, almost identical with those reached in the case of the village previously studied. There were 22 families originally in a sound position ; now there are 25, or a slight increase. All those previously solvent remain so, and three are added from the insolvent class. The improvement in the position of the latter is due, as before, to the increased income from land, and to the interest being stationary.

The twelve families now in Group I have improved their position. Formerly they had an excess of income of Rs. 2,277; now this excess is Rs. 3,644. There has been, in fact, a rise of 60 per cent, that is to say the excess has increased in greater proportion than the rise in prices and wages. The 13 families in Group II have also slightly improved their economic position. Formerly they had an excess income of Rs. 195; now this excess is Rs. 363. Though the annual profit in these 13 families small, yet it has risen by 86 per cent, or again in larger proportion than the rise in prices. The net loss of the 122 families now insolvent according to our standard (Group III) has increased from Rs. 17,119 to Rs. 22,569, or by nearly 31 per cent. This is again large, but the increase in loss is not quite in the same proportion as the rise in prices.

The results in the two villages under study are, therefore, exceedingly similar, and the results drawn on a previous page for Pimpla Soudagar seem to be perfectly true for Jatogion Budruk. We would particularly call attention to the general conclusions. These show the mitigating effect of a previously high rate of interest on the results of a rise in prices. And more important still they show how a rise in prices will tend to emphasize economic differences, especially where the change in prices does not connote a corresponding change in the rate of interest.

In general, the evil effects of rise in prices on the general conditions of the rural population can, in the Deccan at any rate, hardly be gainsaid. And if this is clear, the question of the maintenance of low prices by any means may be a matter for much more serious concern on the part of those in authority than has hitherto been realized.

Welfare work in Madras City

BY MRS. WHITEHEAD, C.B.E.

1. Welfare work in India is still in its infancy, so that there is very little information bearing on this subject available in convenient form for reference. Information with regard to the economic history of the labouring classes in Madras is hidden in vast piles of household accounts, acquittance rolls of firms, petitions, letters to and from Government departments and records of Municipal doings. From all these sources much valuable matter will no doubt some day be extracted, but so far the work has not been done. From time to time investigations into actual conditions have been made, the first to be published being a small pamphlet by Mr. Arthur Davies and Mr. Ewing, and workers of all kinds amongst the poor have gradually accumulated a certain amount of knowledge about them. For all that the stock of information available is extremely small and in many cases not altogether trustworthy.

Moreover there are no trained welfare workers in Madras. This is not to say that there are not highly trained people working in different departments. There are doctors, nurses, sanitary inspectors, school teachers and officials of the co-operative movement, but of trained welfare workers in the modern sense of the word there are none.

Social workers in Madras have therefore had to work out their methods in the light of their own experience with such guidance as they have been able to get from the reading of Western literature and from departmental experts.

2. Welfare work has of course been carried on by Government, by missionary agencies and by a few special bodies, mainly under the heads of hospitals, schools, co-operative societies. I do not propose to make an examination into the work which has been accomplished but simply to describe a method which has been evolved in connection with work amongst the labouring classes living in the villages, commonly called Paracheries, which are dotted about the municipal area of the City of Madras.

3. The Paracheries are said to be about 150 in number. They are of different sizes varying from a dozen small huts to

a considerable area, with a number of different streets and houses of many different types. They are inhabited mainly, though not exclusively, by Panchamas. There is often to be found a small number of Mahommedans, Indian Christians and Anglo-Indians. The Kuppums and some of the caste villages are in general description hardly to be distinguished from the paracheries and the methods of work in these places are much the same.

4. *The land.*—In some cases the land on which the paracheri is built belongs to the Municipality but more often it is the property of the non-resident landlord. These landlords are often Mahommedans and their ownership dates far back. The people who have settled on the land generally believe that they have occupied it from time immemorial, that their fathers entered into an agreement with the ancestors of the landlord to clear the ground on condition that they should occupy part of it themselves. There are, however, no records of these transactions and it is possible that the first occupants were merely squatters who were allowed to build leaf shelters from which their present houses have gradually been evolved. A rent is charged by the landlord for the house site. This used to be four or eight annas but in many cases it has now been advanced to a rupee or Rs. 1-8-0. Further the value of land has increased very much since the beginning of the war and there is consequently a tendency on the part of the landlord to sell. He may offer the occupant the first refusal of his house site but at a prohibitive price, rising as high as Rs. 1,500 per ground or Rs. 27,000 an acre. In a single case the people have united to form a Co-operative Building Society and with the help of the Municipality have acquired the land on which their houses stand. Many other groups would like to do the same thing if help could be given them in making the necessary arrangements.

5. *Houses.*—The house itself or superstructure is generally the property of the inhabitant (occasionally we find him also the possessor of the house site but as a rule he pays rent to a landlord). Some of the houses are certainly not worthy of the name. They are mere leaf shelters—a very inadequate protection against sun and rain—others with mud walls are little better. We found one the other day which measured 8 ft. by 4 ft. and was 6 ft. high and in this one room people were cooking, sleeping and giving birth to children. Most of the huts however are somewhat larger and there is often a smaller room which is used as a kitchen. One of the worst features of these huts is the bad quality of the flooring. The houses are built on the ground

without a plinth and in wet weather are never dry. When the ordinary storm water becomes mingled with sewage either from the cesspools or, which sometimes happens, from the drainage pipes themselves, the condition of the house can hardly be imagined by those who have not seen it. It has recently been stated that the death-rate in one roomed houses is 60 per mille, in two roomed houses 19 and in three roomed houses 9 per mille, figures which are more eloquent than any words to describe the evils arising from bad housing.

6. *Sanitation.*—The problem of sanitation in these paracheries is an extremely difficult one. Some of them are furnished with latrines, although this is not always the case. Moreover the accommodation in the latrines, especially on the women's side, is often very deficient. The consequence of this is that the spaces round the latrines and also the lanes themselves are in a very dirty state. Even when new latrines are built on the most approved principle by the Municipality, a reformation is not immediately effected as the habits of the people have to be changed by gradual education.

A very important matter in the sanitation of a paracheri is the disposal of the rubbish. The ordinary paracheri is in a very dirty state. There are heaps of old leaves, paper, broken tiles and dirty rags in odd corners and although the Municipal cart is supposed to visit the locality there are many places where it cannot penetrate and where the rubbish heaps may remain undisturbed for a considerable time. The Health Officer is willing to give dust bins where the people ask for them and if social work is actively carried on the people can be taught to keep the street perfectly clean and to put the rubbish into dust bins. It is in fact much easier to teach paracheri people to dispose of their rubbish properly than caste people, the latter being defiled if they approach too near to dust bins.

7. *Water supply.*—There were a very large number of old wells in Madras but these are now mostly closed and are superseded by taps. In a few cases individual houses in the paracheries have got taps, but in many instances there is single tap for the whole village. The women feel it a great hardship to have to walk five minutes from their door to the tap and five minutes back in order to get a pot full of water, there are often struggles for first place at the tap and many have to wait for a very long time for their turn.

8. *Lighting.*—One of the improvements which the people mostly pray for is the provision of good lighting in the streets. If the expenditure of money were left to them they would probably

spend an undue proportion on lamps compared with that expended on sanitation and yet their standard is not very high and even in the best lit paracheries the light is very insufficient. Compared to the lighting in the paracheries of Bangalore, those in Madras are very badly furnished.

9. *Employment.*—The labouring classes of Madras live in the paracheries. Here we shall find the coolies, rickshaw men, jutka wallahs, peons and domestic servants, with a sprinkling of artisans, fitters, compositors, carpenters and schoolmasters and also a certain number of clerks either in private firms or in Government service. So amongst the poorest of the inhabitants we find men earning 4 or 5 As. a day and that not regularly, domestic servants on Rs. 10 to Rs. 15 a month, Government peons on Rs. 13, while the aristocracy of the place consists of writers, schoolmasters, superior artisans and butlers in service in large houses. It should emphatically be stated that in the Paracheries many families are to be found of high character and real capacity.

10. *Expenditure.*—We have often attempted to find out exactly how much the people receive and how much they spend, and so far our results have not been satisfactory as we have only collected a very small number of family budgets which we can believe to be correct. It is especially difficult to get the people to tell us how much they spend on drink. As a rule the poorer the family the larger the proportion of its income which goes to the toddy shop. The question of food may be approached in the following way. The Jail department may be supposed to have worked out the cheapest dietary under which a man can be kept in health and strength. The rations given in the Madras Jail for one man consist of—

			lb.	oz.
Rice	1 4
Vegetables	0 6
Oil	0 0½
Tamarind	0 0½
Salt	0 0¾
Curry powder	0 0½
Onions	0 0½
Firewood	0 12

The cost to Government is three annas and five pies a day. A woman requires rather less food and the food of a family of five (father, mother and three children) according to the jail standard costs in the bazaar Rs. 28-14-6 a month. To this must be added rent, clothing and also interest on loans which have been taken for

incidental expenses such as marriages, house repairs or funerals. It would seem therefore that a man cannot marry and bring up a family of three children on a smaller income than Rs. 23 a month. How then are we to explain the discrepancy between this sum and the income received by working men? The suggestions which have been made are first that there are sources of income which the people are not willing to acknowledge and secondly that in many days in the month they do not eat enough to satisfy their hunger.

Although as a scientific statement this leaves much to be desired the main fact is clear that both Government and private employers are paying wages at rates under which it is impossible for the people to live up to the standard of necessity, or in other words we are feeding our convicts better than our honest servants. The result of this procedure must be not only a very great loss of infantile life but a low standard of physique which will have a very serious effect in the years to come.

11. *Methods of Social Service.*—We cannot expect to effect any sudden improvement in the conditions of the labouring classes, especially as the conscience of the more educated or wealthier people is not yet awakened. Many people would be prepared to improve the condition of the poor if this improvement could be brought about by speeches at public meetings and the passing of resolutions. But when they find that a real improvement involves increase of taxation or higher rates, as well as a real effort in personal service, their enthusiasm is apt to fade away.

Two improvements which are urgently required are—First that Government and private employers should raise the pay of their servants so that they can afford to get food at least according to the jail standard, and secondly that the Municipality should be willing to spend money on improving the localities in which they live. But in addition to these measures there is room for a very great amount of social service or education in social welfare to be carried on by honorary workers amongst the people themselves.

In considering how this work may best be carried on we are confronted with the fact that the main social evils—poverty, disease, ignorance and intemperance are all interlaced and one can hardly be attacked by itself. Poverty, for instance, is largely due to incompetence which is due to want of education, but it is also due to intemperance and its immediate cause is very often a heavy weight of debt incurred for a marriage or some other special occasion.

And we therefore feel that social service may most effectively be carried on by selecting a group of people and amongst them vigorously attacking the main existing social evils at the same time.

Our first step must be to secure workers and it is necessary to stipulate that if they undertake work they must carry it on regularly, giving one afternoon a week to the area to which they are attached. It will be necessary for them first to make some kind of survey of the area or paracheri which they have selected. Several good questionnaires have been drawn up, varying in elaboration. The following is a simple questionnaire suitable for a beginner.

- (1) Name and address of investigator.
- (2) Name of area or village to be investigated.
- (3) General description of locality and surroundings:— On a hill? on the plain? enclosed by a wall? near a river?
General description of houses: mud? stone? brick? one or more storeys? tiled roofs? Number of houses.
- (4) Number of inhabitants? Names of principal castes and races and approximate number in each? (including Europeans).
- (5) Principal trades and occupations?
- (6) Where do the people get their water-supply? Are the streets lit by lamps at night? Are there any dust bins or rubbish pits? Are there any latrines?
- (7) Medical assistance—Is there a doctor? a hospital? a dispensary? a midwife? Barber women? What is it the habit of the people to do when they are ill? Note especially on the confinements of the women.
- (8) Health—What sickness is most common in the area or village? What is the rate of infantile mortality (i.e., the number per thousand of babies born who die before they are one year old. You can get this figure from a registrar of births and deaths).
- (9) About how many of the people are in debt? How much is the amount of the debt? To whom is it owed? What security is given? What interest is paid?
- (10) Are there any Co-operative societies in the village? Are they successful?
- (11) Are there any schools? How many of the people can read?

(12) Is there a liquor shop in the area? Do the people drink much?

(13) How are the affairs of the place conducted? Is there a panchayat which settles disputes? Talk this over with the elder men and if there is no such committee, ask them if it would be possible to form a committee which would,

- (a) encourage the formation of Co-operative societies,
- (b) improve the sanitation of the place,
- (c) fight against the drink habit,
- (d) start and manage primary schools when they are needed.

(14) Do you consider the social condition of the place satisfactory? If not, in what respects is it unsatisfactory? Can you suggest any practical remedies?

The worker will not be able to make these enquiries all at once. He will first have to establish some kind of relationship with the people, but if he goes out for the first time with an experienced worker this will be easily done as the people are very willing to welcome those who visit them in a friendly spirit.

The young worker will require some guidance in deciding what form of social work to undertake first. Many lads made a beginning at the time of the influenza epidemic and any special need of the people is also a great opportunity for winning their confidence, but whatever be his first step one main object of the worker should be to start a Co-operative Society, as with this as a foundation much may be accomplished, while without it the indebtedness of the people is a constant obstacle to their progress. In early days it was very difficult to interest the people in the idea of a Co-operative Society but there are now so many primary societies in Madras that the people themselves are asking for them and we have need for many more workers than are available for consolidating the work that is already begun. After the Co-operative Society has been formed it requires close supervision, given tactfully and in the nature of advice rather than of discipline, for a long time. Constant little difficulties arise and the worker will have to deal with them one by one, acting often on his own responsibility with only his good feeling and common sense to guide him. But the wonderful results that come from the establishment and good management of a Co-operative Society will

be an ample reward and he will have the pleasure of finding the people grow in sense of responsibility and of seeing new ambitions springing up amongst them. In connection with the Co-operative Societies, the Registrar is anxious to promote buying of supplies on the indent system. Isolated experiments have already been made and are much appreciated by the people. The system recommended is to open what may be called a One Day Store. The use of the school or some suitable building is secured and to this brought on an appointed day as much rice, oil, pepper, chillies, tamarind, salt, and other supplies as is required by the people for a week. They have previously indented for the exact amount required so that there is no possibility of waste. The supplies are then distributed and the cost is entered against them as a loan.

Arrangements have been made for carrying out the same process next Pongal day with regard to cloth.

As we go about we are constantly asked to start a night school or even a day school as the people have come to recognize the value of education. There are over 400 elementary schools in the City of Madras and yet we are asked for more and more. The schools are not all very effective, and there is need of a larger supply of really expert supervision, but this hardly comes within our scope as none of us has the necessary training or leisure to raise the standard of teaching in these schools.

In attacking dirt and disease we have been very successful where we have been able to secure and retain workers. It has been found that the people in a paracheri can be trained to keep their village in a good state, free from the heaps of rubbish which are the worst breeding grounds for disease. There is a growing demand for dust bins and in some cases a number of the inhabitants of the cheri undertake to see that they are properly used. A still further improvement could be effected if the Corporation were willing to spend money on a better provision of latrines and if voluntary workers were willing to educate the people in this respect.

As regards medical work an experiment has been made during the past two years which has been very successful and which the Surgeon-General hopes to continue. The use of a school or other building for a couple of hours each week is obtained and a lady doctor visits the place bringing a box dispensary, which is supplied by Government. The women and children in the village are brought to the building by the honorary workers. The doctor then treats those suffering from minor

ailments and advises those suffering from more serious complaints to go to the hospital. It is the duty of the honorary workers during the week,

(1) to see that the sick people really do go to hospital,

(2) to see that the treatment prescribed by the doctor for the minor ailments is carried out.

A course of training in Hygiene for voluntary workers has been organized and opens on January 6. It is hoped that this will be of great assistance to the honorary workers engaged in this form of service.

Under the scheme outlined above there is a great opening for work in the City of Madras. The people are eager for work to be developed in this way. The officials are most ready to help in every way possible and what is needed is a large increase in the number of honorary workers who will regularly give up every week a definite portion of their time and who will submit themselves to a definite training. There is this further encouragement that in a large number of areas it will only be necessary to start the work and to supervise it for a short time. The leaders amongst the people will then be quite able to undertake it themselves and to carry it through successfully with the friendly help upon which they can always depend from the departmental experts.

Little has been said about the moral problems which are involved in all attempts to raise the people. In the course of our work in the City of Madras we find terrible evidence of degradation of life. It is beyond the scope of the present paper to discuss how this should be dealt with but it must be ever before the social worker whatever may be the particular form of work in which he is engaged.

There remains only to discuss the general organization of welfare work in the City. Effort seems usually to take shape in the form of very small organizations each with its own President and Secretary and small handful of workers. There are at least a dozen such organizations in Madras, some of them fairly well established and some of them quite new. Each has its own little sphere of work, each its own little bundle of enthusiasms, and any attempt to drill these organizations and bring them too rapidly into line would have the effect of extinguishing the small spark of true desire for service which animates them. On the other hand, it is necessary for their own sake as well as for the work to co-ordinate them by some general organization, and in 1917 the Madras Council of Social Service was formed to which all Social Service organizations in the Presidency are affiliated. This Council does

not interfere with the internal government of any local organization but it takes action on points which affect several organizations. It discusses policy and advises new leagues and associations when asked to do so. Its latest activity is to arrange for a scheme for training which is to be carried out under the general direction of the Surgeon-General and the Registrar of Co-operative Societies. It should in time be able to collect a library on social subjects and to make its experience available in the form of pamphlets.

But after all our problem is not organization: to spin schemes and reduce them to paper is an easy matter, to acquire knowledge is a question of brains and time, but to raise up the depressed, to set free vast numbers of men and women who are enslaved under the tyranny of poverty, disease and vice requires a real power of sympathy and active love and a constant subduing of selfish aims. As the years go on those of us who have been working together amongst the poor of Madras feel more and more that it is not schemes, however necessary and however good, that are going to raise them, but the power of a simple humble friendliness, in which we shall profit as much as they.

Industrial Betterment and Welfare Work in India

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The suggestions which form the subject matter of this paper are based very largely upon a study for three years of the working of the industrial system in Bombay. Although my remarks apply more especially to that city, yet they hold good for the most part in the other industrial centres of the country.

The physical, moral and intellectual well being of the worker can be promoted partly by the worker himself, partly by his employer, partly by independent agencies (e. g., bodies of social workers), partly by local authorities, and partly by the State. We are here chiefly concerned with the part which the employer and the State can play in improving the welfare of the masses. While the State steps in from time to time to remedy some of the most glaring evils, it has largely been left to individual employers to take action.

Voluntary effort on the part of employers to improve within the existing industrial system the conditions of employment in their own factories is known as Welfare Work.

In a modern factory in England where up-to-date welfare methods are employed, we find attention in the first place given to the environment of the worker—the temperature of the factory, its ventilation, lighting, drainage and general cleanliness. Various safe-guards for protecting the worker are provided. The comfort of the worker receives consideration by the provision of mess-rooms and facilities for getting food and refreshments, rest-rooms, lavatories and bath-rooms. A creche is provided for the infants and children of women workers. Employers also realize the importance of giving attention to recreation, and opportunities for social intercourse. Recreation Clubs are formed, playing fields are provided, cricket, tennis, football, hockey, bowls,

croquet, basket ball, swimming, rowing, cycling and other open-air sports are encouraged. Among in-door exercises are billiards, chess, draughts, dancing and gymnastics. The health of the worker is regarded as a matter of prime importance to the employer. For this reason doctors, trained nurses, dentists, dispensaries, convalescent homes and holiday homes are provided. Frequently beds in hospitals are placed at the disposal of employers in recognition of their subscriptions. Mental development is not overlooked and welfare schemes under this head include factory schools, technical institutions, classes in cookery, needlework and housewifery, libraries, reading clubs, works magazines, bands and singing classes. Insurance schemes and provident funds are also frequently introduced by the employer for the benefit of his workpeople. Since the outbreak of War, a large number of progressive employers have established welfare departments with specially trained men and women known as welfare secretaries in charge. The duties of the welfare secretary are many and varied, and the work is becoming a specialized profession.

CONDITIONS IN INDIA.

At present the efforts of employers in India to improve the well-being of their operatives are isolated, and more or less spasmodic. Much of the initial work in educating employers in their responsibilities has been carried out by bodies of social workers, such as the Social Service League of Bombay. This League by organizing settlement work, lectures on social subjects, night classes, libraries, co-operative societies, fresh air excursions, open-air sports, etc., has pointed out to employers work which could very well be carried out in their mills. With the aid of a journal, the *Social Service Quarterly*, and other forms of propaganda, many employers have been interested in the activities of the League and have lent it their financial support. More recently two large employers of labour offered to finance schemes of welfare work in their mills if the League would undertake the work of administration. The first scheme to be carried out was for the benefit of the operatives working in the mills under the agency of Messrs. Currimbhoy, Ebrahim and Sons, Ltd. A building has been provided to serve as an institute where night schools, music and drill classes, lectures, etc., are held. At the night schools the workmen receive instruction in the three R's, English, Marathi, elementary mechanics and weaving. About a hundred students are on the rolls, but unfortunately attendance is very irregular, and few are found to stay at the school any length of time. The music class had to be discontinued

'owing to the irregular attendance of the teacher,' while the drill class appears to be quite successful though small in numbers. There is a library of over a thousand Marathi and a couple of hundred Gujarati books—over 200 persons have enrolled themselves as members. A reading-room, which is well patronized, is also located in part of the Institute building. In an out-house of the building a club has been started with a view to supply wholesome refreshments of guaranteed quality and cleanliness at moderate rates. Arrangements have also been made for in-door games and recreation. A cricket club has been formed and open-air sports are held annually. In order to assist the workers to free themselves from the clutches of moneylenders, eight Co-operative Credit Societies have been started with a membership of nearly 200. During the influenza epidemic a dispensary was opened, a whole-time doctor was engaged, and milk, medicine, blankets, etc., were freely supplied to those in need. Similar welfare work was started by the League at the instance of Messrs. Tata Sons, Ltd., in November, 1918, for the benefit of the three mills under their agency, viz., the Tata, Standard and David Mills. The work is similar to that carried on at the Currimbhoy Ebrahim Institute except that in addition an electricians' night class is being held as an experiment at the David Mills. If it proves successful, a regular course of training will be instituted. A moral class is also held. At the Sports Club, football is one of the games which are encouraged.

The success attending the efforts of the League in connection with these institutes has encouraged it to prepare a bolder scheme for the establishment of a number of Central Welfare institutes where the work would not be confined to the employees of a particular mill nor the institutes maintained by a single firm, but by the general public. As part of this scheme the League intend renting a house in the suburbs to be used for week-end holiday resorts by workmen and for fresh air excursions for children.

WELFARE WORK AT MADRAS.

Of a different nature is the welfare work which has been carried out by the Buckingham and Carnatic Mills in Madras. Nearly twenty years ago a small school was started for half-timers. It has expanded so greatly that it now includes half-timers, children of workpeople, full-timers and adults who attend the technical classes in the evening. In the technical classes the theory of weaving, sizing and spinning, machine drawing, building construction and practical geometry are taught by skilled

foremen to about fifty men on the average. In the school for half-timers the subjects include English and the vernaculars, arithmetic, hygiene, gardening, general knowledge, hand-work, etc., carpentry, blacksmith work, tailoring, drawing, drill and gymnastics. The school is in the midst of bright and healthy surroundings and is surrounded by extensive playgrounds in the large compound. Other forms of welfare work, no less important, are the Gratuity Fund, a Dispensary, a Creche, a Chatram, which provides a cooking, eating, resting place and shelter for workpeople, an institute with a library and reading room, a gymnasium, etc. Further an extremely interesting housing scheme has been initiated for the benefit of the worst-paid workers and already a large number of very superior houses have been built. These are in great demand.

Welfare work is also being carried out on an extensive scale at the Tata Iron and Steel Works, Jamshedpur, and to a less extent at some of the Calcutta jute mills. Apart from these few exceptional instances, very little in the form of active welfare work is being undertaken in India. Let us see what work could be undertaken by employers in India and how far the existing factory legislation fails in its operation.

VENTILATION, SANITATION, ETC.

There are considerable differences in the standard of lighting and ventilation from factory to factory. While in newly-constructed mills in Bengal and Bombay excellent provisions for good lighting and ventilation are maintained and even in older mills the fitting of fans and distributing air trunks has brought about great improvements, there are still large numbers of factories which are badly lighted and ill-ventilated. Defective lighting and ventilation is common in seasonal factories, while many weaving sheds are over-humidified. No great change can be made until recognized standards of lighting and ventilation are adopted and the Factory Act, accordingly amended. It is seldom realized that where lighting is poor, the risk of accidents is increased.

Similar differences exist in the matter of sanitation. Most of the large textile concerns in Bengal have introduced septic tank latrines, and in Bombay excellent latrines are provided in some works. In one of these, the latrines have been made so comfortable that the employer complains that when his men want a rest they visit the latrine, and here they are to be found smoking and playing cards! While in many mills we find such excellent sanitary arrangements in a large number of others the

insanitary hand service system exists. Further, in the Punjab and other parts of the country, the standard of sanitation is considerably lower than in Calcutta and Bombay. Ginning and pressing factories are, again, some of the worst culprits in carrying out the rules passed under the Indian Factories Act, e.g., the annual lime-washing is neglected by the majority of such factories in Punjab.

The importance of a plentiful supply of good filtered water is very great, and while this appears to have received careful attention in the Presidencies, complaints are made by the factory inspectors in the Punjab that there is inadequate provision by seasonal factories. Further, there is no legal compulsion for the provision of lavatories and bathing tanks. Some of the more up-to-date mills have constructed excellent 'pukka' tanks where the water is changed frequently, while others provide walled-in shower baths. The Act should, however, be amended to make compulsory the provision of bathing facilities, the exact form to be prescribed by rule of the Provincial Government. Under existing conditions in many mills there are no facilities for a bath or for a wash during the midday interval or after-work.

ACCIDENTS.

Many of the accidents in Indian mills are attributed to the long working hours in factories leading to a dazed condition of operatives. The only remedy is a shorter working day which will lead to reduction in the number of accidents. Many accidents are caused by the gross carelessness and ignorance of the workers. The great demand for labour during the recent industrial activity in India has resulted in a number of persons unacquainted with factory life taking up the work, and frequently fall victims through sheer ignorance. On the other hand, several accidents can be attributed to bad lighting in a factory, or, in the case of cotton and jute godowns, attempts to economize space at the expense of safety.

It would appear, then, if any great diminution in the number of accidents is to be expected, the working hours should be reduced, interior lighting of factories, especially ginning factories, should be improved, strict rules for the storing and stacking of bales should be laid down, and more care and supervision should be exercised by the supervising staffs of mills to teach raw and ignorant workers. Further, it should be made compulsory under the Factory Act that each mill should have a rubber-tyred ambulance-stretcher which must be kept in a good state of repair. Under the existing Factory Act the rules which have been drawn up by, for example, the Government of Bombay

relate only to the notification of accidents, but no rules are in force which lay down the procedure to be adopted for rendering medical assistance to the injured person. Some mills are situated in remote parts of a city, where gharries are difficult to obtain. I have known of cases where the injured man has had to be conveyed to hospital in a bullock-cart exposed to the scorching heat of an Eastern sun. As the law does not compel provision to be made for immediate medical attendance when required, cases do occur where the injured party is unable to receive skilled first-aid. A number of mills have provided for the part-time services of a doctor or compounder, but frequently they are not on the premises when an accident occurs. It is for this reason that the recommendation of the Government of Madras should be followed by other provincial Governments. The Madras Government has impressed upon factory-owners the importance of making ample provision for rendering aid to workers in case of accidents. Accordingly it is laid down that Chapters 8, 9 and 10 of the Indian Manual of First Aid should be printed and hung up in prominent places in factories, that employers are advised to keep first-aid chests and to encourage the holding of first-aid classes for instructing the more intelligent of the workmen. In the reader's opinion employers of factories throughout India should be compelled by law to make these provisions. They should also be urged to start nursing classes among their women employees as is done in many a factory in England.

Delay in removing the injured party to hospital often occurs through the necessity of a police sepoy accompanying the injured man to secure his admission to hospital. This could be avoided if admission to hospital were made on the authority of the manager or some other responsible officer at the mill.

MESS AND REST-ROOMS.

Owing to the long hours, short intervals and often long distances of factories from the homes of the workers, they cannot return home for the midday meal. Their women-folk bring their food to them at the works, but as no facilities are provided in the form of mess rooms, they have to eat wherever they can. When the midday syren is sounded it is a common sight to see the operatives sitting on the stairs or in the corridors or by their machines, some eating while others are asleep, for no rest-rooms are provided. Surely it is better to have proper rest-rooms than to allow the workers to rest under these conditions or to seek a retreat in the foul atmosphere of the latrine.

No facilities are given for obtaining wholesome food and refreshment within the factory compound. Workers who require to purchase food usually have to do so from the vendors sitting outside the factory gate.

CRECHES

There are many women who work in factories (e.g. 'reelers' and 'winders' in a cotton mill) and who have no relations at home to look after their young children. In many mills, and especially in ginning factories, they bring their children with them to their work.

A factory inspector writing about this says 'it is a common thing to see tiny children playing on the dangerous gins or being nursed by their mothers. The atmosphere is full of dust and cotton waste.' Apart from the dangers of such a practice one can imagine the terrible effects of such conditions on the health of infants, and yet there is nothing in the Factory Act to prevent such young children being brought within the working departments of factories. Even older children who are left by their parents to look after themselves spend their time in their parents' absence either in insanitary dwellings or playing in the streets. To put an end to these evils every factory employing women workers should be compelled by law to provide creches with ayahs to look after the children and babies while their parents are at work. Here they would be cared for and given toys to play with in healthy surroundings.

Such institutions have been established at the Buckingham and Carnatic Mills and at one or two other factories.

RECREATION

Insufficient attention is given by employers to recreation facilities. The long factory hours partly prevent sports being encouraged, but advantage might well be taken of Sundays and other holidays. The Indian working lad and man is very keen on gymnastics and wrestling. These might well be encouraged. The formation of a Sports Club could easily be undertaken by an employer if he would but take interest in his workmen. If playing grounds could not be acquired owing to difficulties of acquiring land, applications for pitches in the public parks and open spaces could well be made and games like cricket, football or hockey encouraged. If these are not found to be popular among the workmen, Indian games like 'kubbadee' might be introduced. It is unlikely that attempts to encourage games or sports on a large scale will be successful until the

hours of labour are reduced, as the workmen are too fatigued at the end of the day or end of the week to take interest in anything.

INSTITUTES

Employers would also do well to follow the example of the Binnys the Tatas and the Currimbhoys by establishing workmen's institutes on the lines already indicated. Such institutes accompanied by the other schemes of welfare work which have been suggested in this paper, would do much to improve the lot of the average mill hand and at the same time would be found to pay the employer. Labour would tend less to migrate from factory to factory and the more contented the lot of the workman could be made the greater likelihood of ensuring an adequate supply of labour and the greater likelihood of labour settling down at the factory. The supply of labour is one of the greatest problems which employers in India have to face and yet they hardly seem to realize that the only method of solving it is to make the conditions of living of their workers so attractive that the labourers will not desire to return to their villages, but will make their permanent residence in or near their employer's mill.

If employers do not take the initiative themselves, their hands will be forced either by the legislature or by the workers themselves, for industrial labour in India is awakening. The contemplated early introduction of compulsory primary education will teach the rising generation of factory workers to read. When once they begin to read, they will begin to think and to demand their rights. Then will commence conflicts between labour and capital similar to those taking place in Europe to-day. Although the capitalist in India has these lessons before him, yet he appears to be blind to them. Now is the time for him to sympathetically investigate complaints and give opportunities to his workers for voicing their grievances, and at the same time to carry out an active policy of industrial betterment and welfare work. This can most satisfactorily be done by the establishment of a welfare department in the mill where men and women trained in welfare methods will be devoting their whole time and energy to improving the position of the manual worker.

HOURS OF LABOUR

According to the Factories Act, no person shall be employed in a textile factory for more than twelve hours per day. There must be an interval of at least half an hour after every six hours'

labour and no work is permitted on Sundays unless there has been a holiday in one of the three days preceding or succeeding the Sunday. While there are several employers who do not work the full twelve-hour day, yet the majority do so. In actual practice the mill-hand rises in the early hours (at 4.30 a.m. or 5 a.m.) prepares and eats a hasty meal, proceeds to the mill reaching there about 6 a.m. or 6.30 a.m. After a twelve-hour working day with a half-hour interval, he leaves the mill at 6.30 p.m. or 7 p.m. at the earliest. On his way home he generally purchases a few condiments and when he reaches home, has to wash, cook his food and have his evening meal. It is nearly 9 p.m. by the time this is completed. Recreation is not possible. He either goes to bed or spends the next few hours at the drink shop. This is repeated daily for six days at a stretch. It is not surprising then that the factory hand and social worker clamour for a reduction of hours. The employer, while admitting that the hours are long, complains that much time is lost in loitering and that the actual hours spent in work are considerably less than twelve. The answer given in reply to this argument is that if shorter hours are actually worked by the operative it were better that he were employed continuously for these shorter hours and then be allowed leisure.

The advocates for a shorter working day urge an immediate reduction to 10 hours instead of the present 12. This would no doubt result in a considerable diminution of output, for any attempt to 'speed up' very greatly in consequence of the great reduction would probably lead to discontent and strikes. Moreover the piece-worker would probably find at first that he would draw less wages unless piece rates were raised in proportion. While economists as a rule recognize the value of reducing working hours, I feel that it will be generally admitted that reduction by stages would bring about better results and cause less discontent than by a sudden reduction from 12 to 10. By all means make the ten-hour day the ultimate aim of the movement, but if it is carried out by stages, production can be screwed up by stages.

In order to create as little dislocation as possible, the twelve-hour day should be reduced by one hour, and then by a further stage of one hour, or two further stages of half an hour each. These hours should apply to all factories and not only to textile mills.

EMPLOYMENT OF WOMEN

According to the existing legislation no woman is allowed to be employed at a factory for more than 11 hours. In actual

practice there is excessive employment of women especially in seasonal factories. In recent reports of the Factory Inspectors for Bombay Presidency cases are recorded where the ginning factory managers have been convicted of working their women labourers for 24 hours, while in 1917 the manager of a mill in Ahmedabad was convicted for attempting to do the same thing. Detection of such crimes—for they are criminal acts—is extremely difficult, and when prosecutions are instituted, the fines imposed have been slight compared to the gravity of the offence. Ginning factories take advantage of the difficulties of regular and frequent inspection, while Section 27 of the Indian Factories Act (1911) practically amounts to allowing them to work their women employees an unlimited number of hours. The only means to put a stop to these abuses is to repeal this section of the Act, carry out more frequent inspection of these factories, prohibit night work for women, and make it a criminal act heavily punishable by fine and imprisonment for an employer to deliberately work women an excessive number of hours.

Moreover to prevent the sweating of women in ginning factories, the principle of a minimum wage would be a welcome introduction. It would, however, be extremely difficult to carry out such a proposal without a greatly increased inspectorate and without educated work-people, which is too much to expect at present. Better regulations for safe-guarding the health of the worker should be made for all seasonal factories. It is in these factories that the greatest abuses exist in the industrial system of India.

There is also great need for the employment of women factory inspectors and women welfare works in all mills and factories where women are employed. It should be the special duty of these welfare workers to safeguard the interests of women employees and to raise the moral tone of those departments of mills where 'naikins' or women supervisors exercise considerable influence for evil. These naikins are women of low moral standing, who frequently co-operate with the reeling clerk to drive many of the girls and women under their control into degradation.

EMPLOYMENT OF CHILDREN

The Factories Act lays down that no child under fourteen years shall be employed in a factory (1) unless certified to be nine years or more, (2) before 5.30 a.m. or after 7 p.m., and (3) for more than seven hours in any one day.

To evade the law a child will frequently be made to work in a factory from 6 a.m. to 12 noon and then go to a neighbouring mill and work there during the afternoon. In two mills in Ahmedabad, two jobbers were recently convicted and fined for having worked half-time children (by arrangements between themselves) in each of the mills alternately on separate sets of certificates. It is extremely difficult to put a stop to such practices, as the children are enrolled under different names in the two mills. The children are also taught by the jobbers or overseers to fear the Factory Inspector, so when he visits a factory and enters a department where children are employed, they race about screaming and if the Inspector attempted to give chase the children would be likely to run into machinery.

Excessive employment of children is not unusual in ginning factories. In one factory alone fourteen children, including four under nine years of age, were found working illegally long hours. To minimise the risk of detection, ginning factories frequently close up on hearing of the likelihood of an inspection or adopt devices to prevent the muster-roll of the factory being inspected.

In order to put a stop to these abuses, the Collector of Bombay in the Bombay Factories Report for 1918 advocates the raising of the minimum age for employment in mills from nine to twelve and the lowest age for adults from fourteen to sixteen. This recommendation is almost identical with the action of the Washington International Labour Conference, which has passed a resolution favouring the minimum age limit for employment in certain highly organized industries in this country being raised from nine to twelve years.

INSPECTION

A great many of the breaches of provisions of the existing Factory Acts are due to inspections not being sufficiently frequent and punishments not sufficiently severe. Many seasonal factory owners, we are told, count upon a second visit of an Inspector as improbable. Numbers of factories are frequently never visited even once a year. The following statistics are of interest:—

During 1918	Inspected	Uninspected.
Punjab	... 65	111
United Provinces	... 145	48
Bengal	... 219	389
Bihar and Orissa	... 2	40
Assam	... None	15
Madras	... 446	14
Bombay	... 815	20

Inspection appears to be very defective in the Punjab, Bihar and Orissa, and Bengal. It is essential that the staff of Inspectors in these provinces should be increased. Also women inspectors should be appointed to give special attention to those factories where women are employed.

Further, Inspectors should endeavour to arrange conferences between employers, employees, social workers and the inspectorate for the purpose of discussing means of securing the safety and health of persons employed.

PENALTIES

In cases of infringements of the existing laws by the employer, the occupier or manager of a factory is prosecuted. This inevitably results in the manager evading the responsibility by passing off the act as that of a subordinate. It is the Agent of the factory who should be liable to prosecution.

The Chief Inspector of Factories in Bombay advocates much greater publicity of cases of prosecution of mills for offences under the Act. He urges that those mills which break the provisions of the act should be pilloried by having their names published. In the writer's opinion this form of punishment would hardly be adequate to put an end to such offences. Where breaches of the Act, especially in case of the illegal employment of women and children, are not the result of carelessness or neglect but of deliberate infringement of the law, the Agent should be held criminally liable for such acts and the punishments should be exemplary. At the present time the penalties imposed are disproportionate to the offences committed.

INDUSTRIES REQUIRING SPECIAL CONTROL

It will have been noticed in the course of this paper that the greatest abuses are to be found in seasonal factories. These should be rigorously dealt with and strict regulations should be introduced and enforced. There are also small industries, such as bidi-making, which require special regulation. To quote a recent report of the Anti-Tuberculosis League, Bombay, bidis are made in places practically devoid of all ventilation, dark and very thickly crowded. About 100 shops were visited which employ 1,500 hands; two of these shops were found to employ as many as 150 hands in an area of about 400 sq. ft. Even worse than these were the others. These are only 3 to 4 ft. in height and 6 ft. by 6 and generally hold as many as 15 to 20 bidi makers. These shops are the chief centres of disease. The workers sit in or place and in one position for 8 to 10 hours.

They cough and sneeze into other's faces and even upon the bidis, and if any one person is suffering from what is known as an open tubercle, the whole attic is thus likely to be affected within a short time.' Young girls from the age of seven are found to take up the work, even though the hours are long and the labour is sweated.

EDUCATION OF FACTORY CHILDREN

The factory Commission of 1908 recommended the opening of special schools in close proximity to mills, where instruction to half-timers could be given. While this suggestion resulted in a number of such schools being opened and, according to an estimate made in 1913, 17 per cent of the factory children attended school, yet the results have been far from satisfactory. Many of the schools have since been closed owing to irregular attendance; in others the instruction given is of little utility owing to inefficient teaching. Moreover, the presence of children in or near the mills during working hours is open to abuse. Correspondence between Government and employers has resulted in various suggestions for improvement, most of which are unsatisfactory. It would appear, however, that the only sound method of dealing with this problem would be for the Municipality to provide special primary schools in industrial localities for the free and compulsory education of half-timers. The initial cost of construction should be borne by the Municipality aided by the Government. The cost of equipment and maintenance should be shared at first in equal proportions by the employer and the Municipality. Subsequently as primary education is extended, the share of the employer should diminish until such time as complete free and compulsory education is introduced, when the employer would no longer make any contribution.

The Bombay Municipality have framed a scheme for introducing complete compulsory education by the end of ten years. If the Municipality were to give attention to the construction of primary schools for mill hands first, and share the cost of maintenance equally with the Millowners for the first year, then, according to my suggestion, in the second year the Municipality share would be 55 per cent and the Millowners 45 per cent, in the third year the respective percentages would be 60 and 40 and so on.

The control of the schools could be vested either in the Schools Committee of the Municipality with the addition of representatives from the Millowners' Association or in a joint committee representing the Municipality and the Millowners.

School carts should be provided by the Municipality to convey children employed at mills situated at a distance from the school.

In the event of the proposal to raise the age of employment of children in factories from 9 to 12 being adopted, the need for providing shools for mill-hands will not arise as the proposed schemes of compulsory education cover the ages from 6 to 12 years.

Time has prevented me from dealing with such questions as housing, sanitation, ventilation, etc., all of which are of the utmost importance.

In conclusion, let me appeal to employers and the Government in this country to give attention to the industrial and social conditions of the working classes. If they fail to give attention to these matters, industrial conflicts will arise in this country similar to what we now witness in the West, for labour is awakening, and with the introduction of compulsory education in this country, labour will begin to demand its rights.

The Housing of the Poor in the City of Madras

BY V. VENKATASUBBAYYA, MEMBER SERVANTS OF
INDIA SOCIETY

Some time ago a member of the Madras Co-operative Leather Goods Factory, of which I have the honour to be President, pressed me to go to his house in order to get an idea of the conditions in which he and some others lived. The house is 52 feet by 42 feet with an open space in the centre which occupies about a third of the area. There is a small latrine which is generally not used by the male inmates. No less than nine families are herded together in this house making a total of forty-eight souls, of whom eighteen are children under ten years of age. When I visited the house two women had been recently confined and three more were expecting to be delivered soon, all in that house. Each family has only one room of the average dimensions of 8 feet by 6 feet, which in some cases is also the kitchen. In fair weather the men sleep in the open space. There is a *kootam* or verandah which is shared by four families in common. The member of the Co-operative Factory who took me there has a room 8 feet by 6 feet, which is half full of things including a chair and a table, and a narrow space 8' x 4' inclosed on three sides which is used as kitchen. His old mother and eldest child sleep there, while he, his wife and two children sleep in the room which is half-filled with things and what is worse it has no window at all. For this accommodation he pays a monthly rent of Rs. 3. You will not be surprised to learn that he is absent from work for about ten days in the month on an average owing to fever, boils or some other illness.

All the nine families living in this house are chamars, i.e. of the leather worker caste. They have lived for many years in the neighbourhood and their place of work also is there. About the beginning of this year the Government acquired some houses occupied by these men for building houses for Sub-Inspectors of Police and dishoused twenty-one families. Some, like the

member of the Co-operative Factory mentioned above, were the owners of the houses in which they lived, while others were tenants. Before these families were dishoused, the house now occupied by the nine families was fetching a rent of only Rs. 15. Seeing his opportunity the landlord put it up at once to Rs. 25 and the former tenants vacated the house. The nine families combined and took up the house for the rent demanded. It should be remembered that they being members of the depressed classes it is not all houses that are available for occupation by them and in their social condition they cannot be co-tenants of other castes. It appears that the other dishoused families have not yet been able to find permanent accommodation.

A few days ago I made a rough survey of thirty houses in Perambore occupied by shoe-makers. These and the nine families mentioned above have always sufficient employment and their wages on an average are Re. 1 a day. Out of these thirty houses fourteen were huts, all but two of which had only one room, a small verandah in each case being used as the kitchen. Of the other sixteen houses eight had brick walls and good roofing. The remainder had mud walls with low roofs of common tiles. These latter and the huts were without any windows in almost all cases. The average outer dimension of the tiled houses was 24 feet by 16 feet. I could get full information in the case of only fourteen houses out of sixteen. These had thirty rooms accommodating twenty families consisting of 104 persons. The density per room was three and a half persons, the entire area in the houses including street verandahs available per head was about 50 square feet and each family had on an average one and a half rooms. The fourteen huts had fifteen families in sixteen rooms, i.e. only one family had two rooms, the rest having only one. The average outer dimension of a hut was 15 feet by 12 feet, about a third or fourth of which was generally the kitchen-verandah. The average density per room was three and three-fourths persons and the area available per head including the verandah about 42 square feet. Except in one case no rent was paid, the houses being occupied mostly by owners and sometimes by their relatives. I should say that these thirty houses were not picked ones but were all the houses on either side of a street, which was neither the best nor the worst in the locality, but typical. I may add that the locality is peopled entirely by skilled leather workers, mostly shoe-makers, whose economic condition is much better than that of the average Madras wage-earner and whose women, like those of the middle and upper classes, do no work except house-keeping.

A slum-investigating sub-committee appointed by the social service bodies of this city have reported on a small compact *paracheri*, called the *Motu cheri* the conditions of which may be taken to be more or less typical. There were twenty-eight huts on about one-third of an acre including lanes. Twenty-five of them were occupied by twenty-six families consisting of 126 persons. They all had only one room, but somewhat less than half of them had a small verandah in addition. The average area occupied by each house is 112 sq. ft. (or about 10 feet by 11 feet), the average for an individual 22 sq. ft.

The English standard for overcrowding is more than two persons per room, excluding the kitchen, bath-room, etc. The housing conditions in England have been improved to such an extent that only 1.6 of the population live in one room dwellings and only 6.6 in two rooms dwellings. The corresponding figures for Scotland are very high being 11.1 and 39.5. About one-third of the houses in the City of Madras are valued at an annual rental of Rs. 14 and less and exempted from municipal taxes. Most of them may be taken to be one-room dwellings. Though statistical figures are not available it is matter of common observation that most of the tax-paying houses are occupied by families which generally do not take more than one or two rooms in addition to the kitchen. The majority of the educated middle class, and the entire classes of shop-keepers and artisans can afford to have only that much accommodation. I should therefore think that about 80 per cent of the population of this City live in one or two-roomed dwellings and that nearly 50 per cent live in one-room dwellings. Applying the standard of two persons for a room only 8.9 of the population in England and Wales were living in 1901 in a state of overcrowding. The highest percentage of urban overcrowding was 34.5, that of London being 16.0—considerably more than the average but not among the worst. We have observed that in the thirty houses of working class people mentioned above, the average density per room was not less than 3½ persons, and except in the case of three families living in small huts every family was living in a state of overcrowding. Of the three cases one was a lonely widow and two were childless couples. I venture to think that judged by the English standard about 75 per cent of the population of this City are living in an overcrowded condition. In Austria the urban population of which is living in a highly overcrowded condition—at least it was so before the War—the minimum accommodation prescribed is about 15 sq. ft. per head in sleeping rooms. The leather-workers already mentioned who are not the poorest

among the working classes, could barely get that minimum area, not in the sleeping rooms but in the entire house—kitchen, verandah and even walls included.

With your permission I will quote some statistics which not only reveal the state of things in this City but also show that it is growing worse year after year. The death-rate for England and Wales in 1913, the year before the War, was 13·7. During the five years 1913-17 the average death-rate for—

Madras Presidency was	...	23·3
The whole of India	...	30·4
Calcutta	...	26·8
Bombay	...	30·8
Madras	...	39·5

Analysed according to communities we find the following average for the four years 1914-17 :-

Europeans	...	17·3
Anglo-Indians	...	26·2
Indian Christians	...	31·0
All Hindus	...	39·3
Brahmins	...	27·3
Pariahs	...	41·9
Muhammadans	...	16·3

The average infantile mortality during 1914-17 for this City was 290 per 1,000 live births and by communities it was among

Anglo-Indians	...	158·5
Indian Christians	...	210·0
All Hindus	...	288·3
Brahmins	...	230·9
Pariahs	...	303·0
Muhammadans	...	313·0

[The rate for Brahmins and Pariahs is for 1914-16, later figures not being available.]

Again, the mortality from respiratory diseases including phthisis rose steadily during the ten years 1908-1917 from 3 to 8·4 per 1,000 inhabitants. In 1918, the year of influenza, it was as high as 13·5. The mortality from phthisis in 1911 was 4 but it steadily rose to 1·9 in 1917 and 2·8 in 1918 which however was an exceptional year owing to influenza. In 1908 the death-rate in England and Wales from this cause was 1·1 being 1·3 among males and 9 among females. [*Encyclopædia Britannica*, Vol. 27]. In 1917 in the worst ward of Madras the rate from phthisis among women was 5·0 and among men 3·7 and in 1918 in the same ward the corresponding figures were 6·2 and 4·4. In

London County in 1908 the death-rate from all forms of tuberculosis was 1·8 per 1,000 inhabitants.

Statistics relating to patients treated in the Government, municipal and aided hospitals throw a lurid light on the conditions of Madras as compared with those of Bombay and Calcutta. During the three years 1915-17 the average number of patients treated was as follows :—

		In-patients	Out-patients
Bombay	...	20,000	1,86,000
Calcutta	...	28,000	3,47,000
Madras	...	28,000	3,49,000

I have only to request you to bear in mind that the population of Madras is about half of that of Bombay or Calcutta.

I will trouble you with only one more set of sad statistics, that relating to the prevalence of phthisis and other forms of tubercle among the out-patients mentioned above.

	Bombay		Calcutta		Madras	
	Phthisis	Other forms	Phthisis	Other forms	Phthisis	Other form
1915	674	868	1023	535	574	241
1916	746	739	1622	171	1380	586
1917	597	729	1397	519	2339	1176

In Bombay there has been a decrease but in Madras the increase in two years is more than four-fold! I do hope some one will explain these extraordinary figures—and explain them away, if possible.

A year spent in the study of books and statistics is not perhaps so useful as an hour of direct observation. I suggest to such of you as are interested in this question a visit to a locality called *Cor Parachery* which is not very far from here.

The housing of the poor in this city as anywhere else may be considered in three distinct—through necessarily connected aspects—quality, quantity and rent. The quality is exceedingly bad, light and air being practically shut out from the dwellings of the working classes. If the Corporation enforces health regulations vigorously, slow and steady improvement is bound to take place. Local health vigilance societies also will have to come into existence to keep active both the authorities and dwellers. Quality and overcrowding cannot, however, really be improved unless the quantity of housing is greatly increased. This is our greatest need and it is in respect of this that the greatest effort has to be made. There is plenty of ground available, if only suitable action is taken by the Government and the Corporation. While the poor live in crowded patches the surrounding land is generally enclosed in extensive bungalow

compounds many of which are taken up by Government for its offices or officers. The demand for bungalow sites by the well-to-do classes has enormously raised ground values. Land and materials have become so costly that the poor cannot build for themselves new houses. Hutting grounds are mostly owned by private parties who naturally want to drive out the poor people living on them, in order to utilize the sites for more paying purposes, such as building bungalows, good houses or business premises. The municipal authorities have widened streets and demolished houses without providing accommodation for the dishoused families. Meanwhile the Government acquires the cheapest and poorest dwellings for building houses for its servants or locating offices or on behalf of Railway and other Companies. It is content with paying a certain amount of compensation and does not recognize its responsibility for housing the dishoused. Dilapidated houses in poor quarters are allowed to lie unrepaired and unoccupied. All these factors have been steadily making worse the housing conditions of the poor. Too much reliance is placed on the old doctrine of demand and supply. The supply no doubt comes but from an unexpected and undesirable quarter. It comes at the expense of life and health.

Another undesirable result of the operation of the law of demand and supply is the rise in rents. It is impossible for a large section of the working classes to pay economic rent for healthy and suitable dwellings. This has been abundantly proved wherever improved housing of the poor has been attempted. We cannot rest content with commercial housing. Non-commercial housing is an absolute necessity if there should be no waste of human life on account of defective housing. Commercial housing invariably leads to overcrowding so far as the dwellings of the poor are concerned. In housing, food or anything else it is cheapness that matters to them, not quality. Hence when rents are put up, lodgers are taken and overcrowding is made still worse.

It is now too late to begin preaching about the value of human life and the duty of preventing its waste. The budgeted expenditure on sanitation alone for the current year is Rs. 1½ crores for the whole of India and Rs. 24·35 lakhs for this Presidency which is greater than that of any other province. As years go on the expenditure on this head can only expand. Once for all the state should recognize its responsibility for the adequate housing of the poor. The state which in times of famine is prepared to spend any amount of money to save even a single human life, ought not to feel any hesitation in accepting this responsi-

bility. European countries have set us an enlightened example to follow. Even the most individualistic countries now recognize the need for state intervention on behalf of the poor. England has been improving and increasing the dwellings of her working classes for nearly three-quarters of a century by public health, housing, town planning and other legislation on the one hand and the construction of dwellings by philanthropic societies, municipalities, co-operative societies and large employers on the other. The improvement effected has been so great that on the whole the housing conditions in England were held before the war to be more satisfactory than anywhere else. But all that fades into insignificance before the colossal national housing scheme she has undertaken after the war. Half a million houses in two years at a cost of £300 million! And to see it through a Ministry of Reconstruction, with district housing Commissioners and the necessary staff, has been organized. The Government is ready with every kind of assistance—standardized materials, plans, rules, expert advice and not least of all—money. Every agency is to be utilized for the construction of houses, the local bodies, public utility societies, housing trusts and even individuals. In respect of these 500,000 houses the Government is prepared to lose annually £6½ millions.

A word about the Public Utility Societies. They are societies having not less than seven members, registered under the Industrial and Provident Societies Act (under which co-operative societies are registered) the objects of which include the provision of working class houses. They must prohibit by their rules the payment of interest or dividend at a rate exceeding the statutory limit which hitherto was 5 per cent but has now been raised to 6 per cent. They can get financial assistance both from local bodies and Government. From Government they can get two kinds of monetary assistance, loans and subsidies. Loans are given for a period of fifty years to the extent of three-quarters of the cost of land and buildings. Subsidies will be given in half-yearly instalments equal in amount to two-fifths of the charges for interest and gradual repayment of principal on the maximum amount which the society is entitled to borrow from the state. Whether it borrows the amount from the state or not and however cheaply it may be able to borrow from other sources. The subsidies alone will cover one-third of the entire cost of the houses.

You will be glad to know that we have just started a Central Housing Association for this City on the lines of public utility societies and that it is fortunate in having at its head

the Hon'ble Mr. Justice T. V. Seshagiri Aiyar. We want our Government to give us the same kind of generous assistance which the Government is giving in England.

Much good housing was expected in this country from the organization of co-operative building societies. But they have generally been a failure barring a few exceptions, the most notable of which is the Bombay Saraswat Co-operative Housing Society under the able guidance of Rao Bahadur S. Talmaki. There are a few societies in this Presidency, the best of which however are still content with lending money for building or repairing houses. No wonder that they have not been a better success, seeing that they have to borrow money at 7 or $7\frac{1}{2}$ per cent and can lend to their members only at about 2 per cent higher. Unless the members themselves are able to get money at 6 or $6\frac{1}{2}$ per cent these societies cannot be expected to grow or multiply. But at best they can help only the middle classes and only a small proportion of the working classes. The large majority of them can never hope to own good sanitary dwellings. The State either directly or indirectly will have to help them in the interests of the general community. Public utility societies are sufficiently elastic to include working classes and others. Similar societies should be started in hundreds and thousands in this country and liberal State aid should be given to them, either in the shape of subsidies as in England or a particularly low rate of interest, say 3 or $3\frac{1}{2}$ per cent, though the Government may have to borrow at a higher rate. To genuine co-operative societies also the Government should give long term loans but not at a lower rate than that at which it borrows.

Employers of labour should be compelled to provide suitable dwellings for at least a certain proportion of the actual workmen employed by them, as distinct from the well-paid staff. And for that purpose the State should give long term loans to them on the same terms as to co-operative societies. Similarly the State and municipal and local boards should house their lowest paid servants.

To sum up, the housing conditions of the poor in this City are frightfully bad and are a disgrace to the people and the Government. A large increase in the number of dwellings is the most urgent need and the State must see that they come into existence. The most suitable agencies are associations similar to the English public utility societies, co-operative societies and employers of labour, including the State and the municipality. Loans for long terms of from twenty-five to fifty years should be made available for all agencies and in addition public utility socie-

ties should be favoured with subsidies or a particularly low rate of interest. Suitable sites wherever available should be acquired and set apart for the housing of the poor, proximity to their place of employment being a main consideration. A restriction should be placed on extent of bungalow compounds and Government bungalows should be the first to come under the housing hammer. No acquisition of houses should be permitted unless suitable arrangements are previously made for the housing of the dis-housed. Above all, it should be recognized by everybody that the lives and health of the poor are more important than the comforts and luxuries of the rich and more sacred than private property rights.

A Madras Paracheri

BY K. C. RAMAKRISHNAN, M.A.

The representatives of the several Social Service organizations working at Madras met three months ago to consider proposals for the conducting of an investigation into the conditions of Paracheris, as it was felt that a detailed knowledge of these localities was essential as a preliminary to any attempt at their reformation. The members that undertook to investigate were divided into several parties of three persons each, to work in different localities. An exhaustive Questionnaire had been drawn up previously and copies of a tabulated form with columns relating to Housing Conditions, Composition and Earnings of Families and Family Budgets were printed for the use of investigators.

The Cheri, which was allotted to my own party* for enquiry, is a block of huts situated on the bank of the Cooum and within two minutes' walk from the busiest part of Mount Road. It contains twenty-six families of 126 individuals inhabiting twenty-five houses, seventy-seven being Christians and forty-nine Hindus. The adults are mostly fishmongers, coolies, cartmen and rickshawallas. It has a few natural advantages in its situation. It faces the river and has no opposite row of houses obstructing light and air, as is the case in most other slums in Madras. The whole Cheri is on a higher level than the Road and so slopes towards the Cooum that this serves as the natural drainage of all rainwater. But smaller quantities of water, used for cooking and washing purposes, cannot find their way to the Cooum across the road, and so collect, in the absence of smaller side drains, in small stagnant pools in front of houses, or at the main entrance to the cheri where much of the washing is done. It is not therefore surprising that the cheri is less dirty after rain than on other days. Though the cheri, on the whole, gets plenty of light and air on account of its facing the broad sheet of water, one is tempted to ask whether the air above the Cooum is not in

* It was my good fortune to have as co-investigators Mr. E. Suryanarayana Rao of the Servants of India Society and Mr. U. Ramachandran, the Convener of the Slum Investigation Committee, Madras. The materials were collected by all of us; but I am entirely responsible for the drawing up of this report.

some parts of the year, more deleterious than any other air. There is also the attendant evil of the people of the cheri using the river bank as latrine at nights, as is usual in our villages. The common latrine is more than a furlong off and it is not common exclusively to this cheri of 126 persons, but it has to serve the whole neighbourhood. This is the case also with the single water tap which is fifty yards off, just at the entrance to the road from the tram line. The women complained to us that on the Dipavali night they kept awake for long hours to get a few potfuls of water from the tap beset by crowds. (The majority of the inhabitants of the paracheri are Christians—Roman Catholics—but they observe the Dipavali festival like Hindus). The Senior Assistant Health Officer of the Corporation reported in 1916: 'There are several slums and Paracheries where one or two public taps on the road side serve the whole area . . . It would be a wholesome rule to construct if possible a public bathing place at every place where a flushout latrine is constructed, perhaps at a short distance from the latter, the sullage from the bathing ghat being used to flush the latrine.'

For about two months we regularly sold Burma rice at four heaped measures per rupee, and this helped us very effectively to get an intimate acquaintance with the people, and to win their confidence.

There are altogether twenty-eight huts in the whole cheri of which one has long been serving as a Roman Catholic shrine, another has been a smithy and all the rest were dwelling places until recently, when one of them, on a tenant quitting it, was converted into a stable. Twelve of these are tiled houses with coarse country tiles, resting on bamboos some of which are in a decaying condition. The rest are thatched with coconut leaves, some on the top alone, some (6) on all sides practically. The walls are all of mud, some only 4 feet high (generally in thatched houses) while at the utmost they rise to $7\frac{1}{2}$ or 8 ft. at the apex and gradually slope down on either side to 4 or 5 ft. No house has a window or skylight, though in some houses light and air, and with them rain, penetrate through many a rent in the thatched roofs. The residents or owners of houses are not anxious to repair such roofs since they are so uncertain now of their tenure in the cheri. Apart from such rents, it is all hideous darkness inside the house which in 13 cases is only a single room of four walls with just a 'slit' for an entrance. The average doorway is 2 ft. by 3 ft. A few houses are divided into two apartments, one a room and the other merely a closed verandah where cooking is generally done. Some houses are provided

with regular wooden doors, while not a few have simply a bamboo *thatti* or screen which shuts up the house when the members are out at work. And what is there inside after all to tempt the thief? Furniture is out of question, the cooking vessels are mostly earthenware, and for many there is no second cloth beyond what they are wearing. Almost all of them purchase their necessaries day by day. If there are children, they make the street their playground.

Except the first two houses, no house can boast of a decent front. Even in the former case, the open yard exists more as an accident, than on purpose, for that too had a house on it which was razed to the ground in a dispute.

There is nothing like method in the arrangement of these houses and it is impossible to describe it unless graphically represented as a plan. The first two huts and the shrine alone face the road; the others are arranged in rows, if they may be so called, of three or four huts each. Between opposite rows of huts are narrow and uneven lanes, some only 5 feet wide, others 10 feet wide. The narrower lanes look dirty with pools of water, while the comparatively broader ones are rendered foul by the drying of fish in a more or less putrid stage. Many of the householders being fish mongers they try to utilize for their own consumption small quantities of fish which do not fetch a good price on two successive days in the market. There are also some spaces occupied by dilapidated houses, heaps of rubbish and broken bricks, crumbled thatched roofs and the thistle plant. On one quarter stands an improvised shed for stabling a horse. Not only does the ground landlord seem to allow the huts to decay and tumble down when owners of huts are not able to reconstruct them, but he has also compelled some owners to remove the superstructures. It is not therefore surprising that while we found the actual living accommodation to be very meagre, the surveyor found out the area of the whole cheri—including the living huts, the dilapidated ones, the lanes, by-lanes and open spaces—to be about six grounds, of 2,400 square feet.

The twenty-five houses accommodate twenty-six families, consisting of 126 persons in all. On an average, therefore, a house harbours five persons. This might seem to connote a comparatively satisfactory state of affairs for superficial readers of the Corporation Health Report which assigns an average of more than eight persons to a house in this city. But as Dr. Newsholme says, the true index of the density of population is the number of persons to each occupied room. More than half the number of houses in our cheri are one roomed and the rest have only a small

verandah in addition. Each hut is, no doubt, occupied by only one family generally—there being only two huts which accommodate two families each, while there is a family which occupies two houses for itself. But the average area occupied by each house, ascertained by individual measurements, is only 112 square feet. The average for an individual comes to only 22 square feet.

We come now to the question of overcrowding. It has been said by Mr. Arthur Davies* that 'there is no definition of overcrowding for India. It would be wrong to apply to India the standard of overcrowding that is a proper one in America or England. There are no buildings of more than one storey in the Paracheri, there are no large factories or chemical works belching forth smoke and noxious gases. . . . There is the possibility or the necessity, rather, for open doors. . . . The sun and rain as cleansing agents have an infinitely greater power in India than in the temperate zone'. But whatever be the standard of overcrowding adopted for India, there need be no hesitation in pronouncing our cheri to be abominably overcrowded; for, who would allot merely 22 square feet as living space for a human being? The extent of overcrowding in our cheri can be gauged from the following analysis of the composition of families and areas of houses:—

No.	Strength of Households.	Composition of Families.	Floor area of Houses.	
1	One Person Household ..	1 man (widower) ..	30	Sq. f
4	Two Person Households.	M. and W. ..	112	"
		M. and W. ..	80	"
		M. and W. ..	60	"
		F. and Dr. ..	60	"
3	Three Person Households.	M. W. and Dr. (ch.) ..	88	"
		F. and 2 Drs. ..	50	"
		F, Dr. and S. in-Law ..	42	"
3	Four Person Households.	M. 2 Sis. and S (ch.) ..	120	"
		M. W. and 2 S. ..	88	"
		M. W. and 2 Dr. (1 ch.) ..	120	"
3	Five Person Households.	M. W. 2 Br. and mother ..	88	"
		M. W. Br. and 2 Dr. (ch.) ..	120	"
		M.W. S. D. and Gr. S. (ch.) ..	150	"
7	Six Person Households. .	M. W. 3 Drs. (2 ch.) and Mother-in-Law ..	100	"
		M.W. S. (ch.) and 3 Drs. (ch.) ..	100	"
		M. W. Father-in-Law, Sis.-in-Law and 2 Ss. of Sis.-in-Law ..	120	"
		M. W. S. (ch.) mother, Br. and uncle ..	200	"
		F. Dr. 3 gr. S. (ch.) and 1 gr. Dr. (ch.) ..	100	"
		F. 2 Ss. Dr. in-Law, Gr. S. (ch.) ..	90	"
		M. W. 2 S. (ch.) mother and Br.'s Dr. (ch.) ..	90	"

* 'Three Hundred Anglo-Indian Families',

No.	Strength of Households.	Composition of Families.	Floor area of Houses.	
2	Seven Person Households.	M. W. 4 Ss. and Dr. . . M. W. 2 Drs. (ch.) mother and 2 Drs. (ch.) of Sis.- in-Law	112	Sq. ft.
2	Eight Person Households.	M. W. 4 Drs. (2 ch.) S. (ch.) and Gr. S. (ch.) . . M. W. 3 Ss. Dr., Dr. Dr.-in- Law and Gr. S. (ch.) . .	220	" "
1	Nine Person Household . .	M. W. 4 Sons (2 ch.) and 3 Drs. (1 ch.)	112	" "
			216	" "

M = Man.	Br.	= Brother.
W = Wife.	Sis.	= Sister.
F = Female.	Gr. S.	= Grandson.
Dr. = Daughter.	Gr. Dr.	= Grand Daughter.
S. = Son.	M. in-Law	= Mother-in-Law.
Oh. = Child.	F. in-Law	= Father-in-Law.
	Sis. in-Law	= Sister-in-Law.

According to the standard which regards over-crowding as beginning when there are more than three persons to a room there would be as many as 8 families and 18 persons in this paracheri not living under overcrowded conditions. Even then 86 per cent of the population are overcrowded. But our rooms cannot be regarded as average rooms, and if we take into account the actual area of the huts and the available space for each human being to live and grow, there would appear to be scarcely one house not overcrowded. There is one house inhabited by a single person; this has a floor area of only 30 sq. ft. There is one house of 112 sq. ft. where a couple live. If 40 sq. ft. be admitted to be fairly sufficient for a human being, one more house where also a couple live may be exempted. If 30 sq. ft. should also be conceded as the under limit (taking all children under 15 as half-persons) we have 11 more houses sheltering 35 souls which would pass that standard. After all these deductions, we have still left 12 out of 25 houses with 87 persons wretchedly overcrowded. In these lairs, we find men and women, married and unmarried, and children of both sexes herded together like a pack of animals. We fail even now to comprehend how these houses, where elbow space cannot be said to be available, provide sleeping accommodation for so many souls.

If every inch of the floor of the houses were to serve for sleeping (which is impossible) and if the actual space needed for spreading the bed, which is generally a coarse and dirty mat or a jute sack of the size of 6 by 3 ft. be 18 sq. ft., as many as 36 persons would have not even so much sleeping accommodation. We were told that in the hot summer months and on nights when there was no cold nor rain, male members might lie on the

open spaces, which are neither broad nor even, some might sleep in the shrine which at most can accommodate three persons, leaving the women and children to sleep indoors. But what are they to do in the rainy and wintry nights? Men and women huddle together, just avoid the holes which admit the downpour of rain from above, and allow the children to sleep if they can, the more elderly members keeping awake or sleeping in turns.

There are not in the vicinity of our cheri any big buildings or houses with pials where the overflowing population of the slum might find some sleeping space—as seems to be the case with the homeless folk in some parts of Georgetown.

In the immediate neighbourhood of this cheri on the east there are three brothels. We daily passed by a dozen prostitutes, most of them palpably tainted with foul diseases. Two or three of these call themselves family women and the rest are professional. We know in fact that the two male relatives of these 'family women,' quite accomplished fellows in their own way, are now incapacitated by syphilis and thrown out of work.

On the west side of the cheri is the ubiquitous toddyshop. Drunkenness and debauchery, on either side, beset thus the outlets, for our poor overcrowded population. The physical danger of overcrowding is patent, the moral danger of overcrowding can be estimated by a consideration of the constitution of the population with reference to age, sex and conditions of marriage. We have in all fifty-six males and seventy females, the preponderance of females is in the proportion of 125 to every 100 males. Of the seventy females, twenty are below the age of fifteen, and fifteen are past the age of forty; so within the limits of fifteen and forty we have thirty-five women; and of these as many as fifteen are unmarried. On the other side, of the fifty-six males, twenty-eight are between the ages of eighteen and forty-five, and of these the unmarried are twelve, while seven are past the age of forty-five and twenty-one are below eighteen. Even amongst the married folk, two or three couples have had no regular marriages performed at all—the women having been 'kept' for a long time. These unvarnished figures will tell a tale of themselves concerning the moral danger lurking in such overcrowded houses. We could however actually detect only a few cases of immorality though our suspicions of two or three supposed bad characters were confirmed by what the most respectable of the community had to say of them.

It can be asserted, as a matter of course, that there is not a single adult male who does not drink—at any rate, occasionally.

Among the habitual drunkards are to be found a few women too. The worst drink heavily at the expense of bare necessities—the women and children not only going without food on some nights, as they complained to us, but often receiving blows and insults instead. The worst drunkards are found among Rickshawallahs and Cartmen. Regular but moderate drinkers are amongst coolies and fishmongers, men and women. The occasional drinkers are mostly persons who draw monthly salaries, who drink away part or whole of their extra earnings. As it is, the expenditure on drink, especially in the case of the day labourers, amounts often to fifty per cent of their income while it is rarely below thirty per cent. This is their own estimate. The tendency on their part is in calculating their daily income to deduct the amount spent on drink. In their view, toddy is a necessary expense of production. In the eyes of the Rickshawallah and the Cartman, the Gramani (the toddyshop keeper) has as much a right to exact his toll as the Sowcar, the owner of the Rickshaw or the Cart, the right to demand his stipulated hire.

The causes of Drunkenness—the ubiquity of the toddyshop, the monotony and fatigue of hard labour, the lack of a steady income, the want of wholesome interests for their minds and the want of nourishing food for their bodies—we do not know, and we have not studied to what exact extent each of these is responsible for this most grievous and universal trait of the Paracheries. The few sensible women, who expressed their disgust at this sad feature, very pertinently asked us why on the day of the 'hartal', when all the other shops were closed, the toddyshop was kept open. Was the keeper above control by public opinion? We could give no reply. This is a very large question and unless seriously tackled, we must despair of any moral or economic betterment of these people.

'All living things tend to adapt themselves to their environment.' It is inevitable that such an environment, as sketched above, should exert a coarsening influence, especially on the children, and thus perpetuate degradation from generation to generation.

The counteracting influence of Church and School is not altogether absent, but it is far less than what might be expected in a Christian community. The Hindu Panchamas have not had the remotest chance of being ministered to by anybody, and literacy amongst them is very low. Three out of forty-nine are literate. The Christian males seldom go to the nearest Roman Catholic Church about half a mile distant. They said the women and children used to go or at least tried to go every

Sunday. We ourselves noticed only children going. The women being asked the reason for their staying away replied that with their dirty and insufficient dress, they felt disinclined to go. There is also truth in the remark of the candid man who said that with their vices they fought shy of the priest. And the priest is said to visit the cheri only very occasionally—as in cases of serious illness. But in the Church itself, abstinence from drink and debauchery forms the theme of the sermons. In our opinion, these sermons and the advice of social workers cannot be of much avail, unless pressure from Government is brought to bear on the immoral traffic carried on by the toddyshop and the brothels. And a substratum of education is also essential for any work to bear fruit.

The total number of literates in the cheri is twenty-four, if we include the nine school going children also. While the Hindu literates are only three out of forty-nine, the Christian literates are twenty-one out of a total of seventy-seven. Of the fifteen adult literates, two only are women, and thirteen are men.

We were much gratified to hear of the influence of one of these women over her husband, who from having been an unruly young man has been slowly converted into the most pious and respectable member of the community. He has become a natural leader of the cheri, takes keen interest in the small shrine erected adjacent to his house, and is most solicitous of the welfare of the whole population of the cheri. We do not mean to exaggerate the influence of education in these lowly walks of life, but that in some cases it has morally and in many cases materially benefited the people is a fact that cannot be disputed. And it is a truism that the elevation of these classes by *themselves* which alone can be lasting can be best brought about by educating them. We counted as children of school-going age all those between the ages of six and twelve. Of the thirteen boys and nine girls, only six and three respectively attend the day school, which is within two minutes' walk from the cheri. The rest of the children, with the exception of a single bright and brisk boy who works in the smithy, are iddling away their time.

What struck us most in this connection was not the smallness of the number of children going to school, but of the smallness of the total number of children themselves surviving in the cheri. Either the children born were too few for the population especially for the number of women in child-bearing age, or the children surviving long after birth were rare. We could detect not more than a single case of illegitimate birth. We have our

own doubts concerning statements of births and deaths within the last five years. But taking theirs as correct, they have had within the past five years, twenty-two births and twenty deaths. The death-rate for children is, as usual in such localities, very high. Half the total number of deaths was of children. Ten of the children born (i.e., 45 per cent) are dead; three children died of fever, two of fits, three of small-pox and two of cholera. Of the ten elders, only three died of old age, and one was murdered, and one young woman died soon after delivery, the other five, three men and two women, all of them earning members, died of fever. We are struck at the cases of preventible diseases, which took hold of so many lives. Our wonder, however, was not that so many died, but that, under the circumstances and when influenza was raging in the city, more did not die. It indicates perhaps that this is not after all the most unhealthy of slums in Madras. The free air and the natural drainage of the cheri might give it a partial immunity.

No wonder then that the people cling to the cheri with a tenacity which is most annoying to the landlord. Almost all the Christians and some of the Hindus have been living here for generations and some of the elders among the Christians do not remember when their ancestors settled down in the cheri, while they all remember the occasion in 1904 when this plot was purchased by the present Muhammadan landlord. Only one house in the cheri is owned by the landlord and another Muhammadan owns eight houses. All the other nineteen huts are erected and owned by eight members of the cheri, nine of these huts are occupied by their own families and the other ten are rented out to other families who pay rents for superstructures alone, the land rent being paid by the owners of superstructures to the landlord. The families living in rented houses or tenements are seventeen. House-rent or superstructure rent varies from 10 As. to Rs. 1-8 per mensem. The house owned by the landlord himself fetches Rs. 2-4, and this is the highest rent in the cheri. On an average it may be put down as Re. 1 for which we may roughly say that a tiled house of the area of 80 sq. ft. can be had or a thatched house of little more than 100 sq. ft. The land rent or ground rent—paid by owners of superstructures, nearly seventy per cent of whom are members of the cheri—ranges from 6 As. to 10 As. per plot covered by a single house. The average may be put down as 8 As. per plot. The big ground landlord gets only about Rs. 12 per mensem for all the land and the house that he owns in the cheri which covers an area of five grounds.

There is little rackrenting and the tenants admit that they would have to pay twice as much rent for the same space elsewhere in the city. The chief reason for the low and stationary amount of rent is the long tenure of the residents in this cheri. The moral obligation that the landlord seems to observe of seldom raising rents when a tenant continues to stay in the house is indeed praiseworthy. But every one of us is aware of the universal practice in Madras for the landlords to raise rents on every occasion of a change in tenants, and such a change is often brought about by the landlords with that very motive. Our landlord is actuated by no such motive in giving notice to quit to these poor folk *en masse*. For, so long as it is a Paracheri and the huts remain unimproved, though rents may be increased to double the present amount they can by no means be made to come up to the Economic rent the landlord might expect to get by razing the huts to the ground and building in their stead stables and garages. He himself gets a round sum of Rs. 25 per month as rent for a tiled building adjacent to the cheri which has four or five stables and which occupies only an area of 1200 sq. ft.

The tenants themselves are not a little to blame for this move of the landlord. There appear to be considerable arrears in ground rent due to the landlord by owners of houses (who in their turn have not been duly paid their house rents by the occupants of houses) while the landlord is liable to be called upon by the municipality to provide better sanitary arrangements. The tenants do not seem sufficiently to realize that besides having practically to lose the value of their superstructures (for what can the old bamboos, tiles or thatches fetch?), they will have to pay much higher rents if they go elsewhere. The twenty-five families cannot all together find accommodation in any one place unless it be a new Paracheri specially created for them. Most of them for the first time would get dispersed in different parts. They must get into other overcrowded Paracheries as the caste people will not readily admit them amidst themselves. They are despised as Pariahs, and dreaded, after the Influenza-regime, as insanitary beings.

From the point of view of the occupations of the people this cheri seems to be the most convenient place for them to live in. There are a dozen fish mongers (five women) who sell fish either at the Moore market or the Chintadripet market. There are sixteen persons employed by firms, if we include the four Linc Coolies of Madras Electric Corporation, who work mostly in Mount Road or Egmore. Of these eight are boys

below eighteen. Besides these there are the daily labourers—fourteen coolies, four rickshaw wallahs and four cartmen, who could not have chosen a more central place for their work.

. . . Unless far cheaper and quicker transport facilities are provided it is no use asking these people to go and live in suburbs far away from the City.

If the Housing problem is to be solved properly, not only has stability of tenure to be ensured to the tenants, but better houses should necessarily be provided, though on this point the ignorant people are not so insistent. The whole site should be purchased and built upon. The surveyor says that land in the vicinity fetches Rs. 400 per ground. It would be difficult to get similar piece of land adequate for our cheri people elsewhere in Madras at this price. This cheri is, moreover, on comparatively elevated ground, while generally the open spaces available are marshy and low and need considerable raising which is a costly affair in Madras. We have also to take into account their great longing to stay in this cheri their ancient home.

We regret we are not still in a position to speak with any authority or precision on Earnings and Expenses. Information on these heads is ever apt to be, if not purposely misleading, meagre and inaccurate. . . We rely, for the present, solely on their vague estimates, and our inferences are purely provisional. Still we venture to give them below for what they are worth.

Of the 126 persons in the cheri the adults who could earn if all of them devoted themselves to work are eighty-five, of whom fifty-three (thirty-eight men and fifteen women) are actually earning. The adults who do not earn are, with the exception of two men, one of whom has been only recently thrown out of employment, all women. Many of these are housewives, who cannot spare time to attend to other than their household duties; and some are young women between the ages of sixteen and twenty-five who are not allowed to go out to work by their elders. The reason is obvious, and we have no quarrel with any of these dependent adults. But the fact that many heads of households have too large a number of dependents to support from their small earnings arrests our attention. The total earnings according to their estimate amount to about Rs. 600 per month, an average of Rs. 22½ per family or Rs. 4½ per individual. The expenses for their necessities (in which is included only one conventional necessary, coffee) comes to Rs. 5½ per head—according to their standard of living. There are thirteen families who get below Rs. 22½, the average earnings. During our rice sale we detected twelve families in chronic want.

Judging from the earnings and necessary expenses of each family, the families that are apparently above want—if we mean by this that they earn enough to live up to their standard—are twelve in number. There are fourteen families who cannot make both ends meet, and of these six are very badly off. Of the apparently self-supporting families, we cannot assure with regard to four of them safe and steady habits of living since they contain bad drunkards. In fact, with regard to no family can we estimate the waste thus involved. It may be that some take away a share even from the alleged petty incomes to indulge in what they have come to regard as their conventional necessary. The terrible consequences of such wasteful expenditure coupled with meagre incomes are semi-starvation especially of women and children and hopeless indebtedness to the marwari and the grocer. The total debts of the cheri—as stated by them—amount to nearly Rs. 1,000, borrowed at varying rates of interest—the more common being: 1 anna per Re. per month and 1 anna per Varagan or Rs. $3\frac{1}{2}$ per month. The rates differ according to the solvency of the debtor or the trinkets and brass vessels that he pawns. Most of the articles pawned cannot be redeemed, since the debts are many months or years old, and interest has been accumulating. Our people, however, do not feel particularly despondent since they have become inured to such a life; and *fatalism* is by no means the exclusive possession of the Hindu higher castes. It serves even the lowliest of the Hindus, nay it even clings to those who have abjured that religion.

How, then, are we to rely upon the capacity of our people to pay higher rents for remodelled houses, if the housing scheme is to be a business proposition and not a philanthropic affair? The most striking feature about the income of these people is its absolute uncertainty. There are only three families with members receiving fixed monthly salaries. All the others are composed of either fish mongers or casual workers. The effects of such occupations, with the most uncertain incomes, on the habits of life of the people are best depicted in Booth's *Life and Labour in London*, with reference to Dock labour. 'Physically, they suffer from the alternation of heavy work for long hours and the unfed and uninterested leisure of slack seasons, and the time during which they are out of work hangs heavily on their hands. A large wage one week and none the next, six months' work and six months' leisure, are not favourable conditions for thrift, temperance and good management. Payment by the hour, with the uncertainty as to whether a job will last two or twenty-four hours, and the incalculable nature of their daily

income' encourage wasteful habits of expenditure. In their forlorn helplessness they make the pawnbroker their banker and the publican their friend.' A far greater work therefore awaits us, greater than the Housing of such people, and that is, so to systematize and organize casual labour as to make it more steady and sober.

We are not sure if 'Co-operation' is really the panacea that it is claimed to be, if it is the magic wand that drives away intemperance and indebtedness; but it is most certainly worth a trial; if it cannot eradicate the evils, it can at least minimise them considerably. Some of the people too expressed their anxiety to deposit 2 or 4 As. out of their earnings every day if there were a Savings Bank. Before a Housing scheme is set on foot, we are of opinion that a Co-operative Bank should be opened. But it is urgent, however, in view of the present difficulties to buy up the land from the ground landlord at once and secure to the long standing tenants permanent tenure in the cheri. We hope that this will not be beyond the means of any Social Service Organization or at least of some of them combined.

I give below the enquiry form used in this investigation.

HOUSING CONDITIONS.

COMPOSITION OF FAMILIES AND EARNINGS.

Street and No. Head of Family. Religion, Caste. No. of Members. Births and Deaths during last 5 Yrs. Terraced, Tiled or Thatched. Area. Rooms. Kudams. Thavarams. Open spaces. Drainage. Water-supply. Closet. Owner of Land with occupation	Dependants				No. of School-going children	Earning Members				Subsidiary Sources of Income	REMARKS	
	Sex	Age	Relationship to Head of Family	Why non-earning.		Sex	Age	Occupation & Hours of work	Distance of place of work			Amount earned

FAMILY BUDGETS

Food			Clothing	Drink	Ceremonies	Debts and Rates of Interest	REMARKS
Nature	Quantity	Prices					

Remarks

Date

Investigator.

Problems relating to Paraiyas in the Tanjore District

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1. The Paraiyas in the Tanjore District like their brethren elsewhere are at the bottom of the social scale. Rather they are *outside* the social system of the Hindus which recognizes only four castes. On the recommendation of the Director of Public Instruction in 1902 the terms Paraiya, low-caste and out-caste, carrying with them as they do a derogatory meaning, were replaced by the term Panchama, i.e. fifth caste. The term Panchama is practically used as synonymous with the expression 'depressed classes' and includes Chaccadies, Godaries, Pallas, Paraiyas, Totties and Valluvas. The Panchamas in the Tanjore District number 507,642 out of a total population of 2,245,029. If the Valluvas and Chukkiliars are excluded, the Paraiyas and Pallas total 495,866, being more than one-fifth of the population, the Paraiya population being 336,208 and Pallas amounting to 159,658.

2. That the Panchamas are untouchable is well known; but the Panchama pollutes not merely by contact but by his neighbourhood and his being within the range of vision. He may not enter a Brahmin street and the theoretical distance at which he must hold himself from the Brahmin—a theory which is happily not so strictly carried into practice in the Tanjore District as on the west coast—is 64 feet. In the case of the other castes, Panchamas pollute them by touch or by entering their houses. Of course, Panchamas cannot enter temples. The village barbers and washermen will not serve Panchamas. They have therefore barbers and washermen of their own caste. In places where there is no Panchama barber, they shave one another. They have no access to public wells, drinking water ponds, schools, etc. Theoretically every well, choultry and school established out of public funds is open to all classes, including Panchamas, but as Government recently admitted in the Legislative Council, there is very severe discrimination even in public institutions, not excepting the great majority of schools, against Panchamas.

3. The problem of relieving Panchamas in the Tanjore District may be conveniently dealt with under two heads, namely the general problem of relieving the Tanjore Panchamas from hardships which they have in common with their brethren elsewhere, and the special problem of relieving the Tanjore District Panchamas. As it is impossible in the course of a short paper to deal exhaustively with both these problems, I shall content myself with considering only the special problem of relieving Panchamas in the Tanjore District.

4. The most pressing question of relief for the Panchamas in the Tanjore District is the question of providing them with *manaikats* or house-sites of their own. Unlike their brethren in the other parts of the Presidency, the Tanjore Panchamas do not as a general rule own the sites of their houses and are at any moment liable to be turned out of their dwellings by an offended mirasdar. This feeling of helplessness reacts on the Panchama and makes him as a rule reckless of the future and only too ready to find his one comfort in the toddy shop where he may drown his miseries in deep potations. He feels he has nothing to live for. Eviction by the offended mirasdar is not the slow process in the course of which the landlord and tenant are pitted against each other with varying fortunes in the arena of the Civil Court; for in some cases, the mirasdar takes the law into his own hands by setting fire to the Panchama's hut, covering it with prickly-pear, or unroofing it, pitching his moveables into the open air.

5. Under the pernicious system of *swanthai* which is prevalent throughout the district and which the mirasdar is anxious to perpetuate, the Panchama receives from his mirasdar (i.e. landlord), an advance ranging from Rs. 10 to Rs. 100 and binds himself to work for him until the advance is paid off. The advance bears no interest and is seldom expected to be repaid. *The loan is the bait for perpetual service.* The debt continues from father to son, and hangs like a mill stone round the neck of the Panchama which no effort of his own has hitherto been able to shake off. Generations of thralldom have had the effect of extinguishing in him all sense of independence and have left him no other resource to better his condition except emigration from the land of his birth. Among the emigrants to the Straits Settlements, to Fiji and the West Indies, the Tanjore Panchamas have been conspicuous in point of number. Though in a few cases the change may have been from the frying pan to the fire, still the freedom to emigrate has had in the past a very beneficent effect not only in raising wages in the district but also by ensuring

better treatment for the Panchamas as a whole. It is an open secret that the Panchamas are anxious that nothing should be done to restrict free emigration. Of course the land-owning classes are against emigration. Although farm servants and field labourers in the Tanjore District, including caste labourers, form only 17.9 per cent of the total population against 23.1 per cent in South Arcot and 20 per cent in Chingleput, yet it is significant that there is far more emigration from Tanjore than from any other district. No doubt facilities for emigration are greater in Tanjore than in South Arcot; but the root cause of emigration is probably the fact that the general economic condition of the Tanjore Panchama is much worse than that of his fellows in South Arcot. In South Arcot the Panchama who owns his house-site can easily become a small land-holder and gradually improve his position. This is scarcely possible in Tanjore. In South Arcot or Chingleput, for instance, a thrifty Panchama can buy some land close to his habitation and slowly emerge from his servile position to that of a petty pattadar. In Tanjore the Panchama who does not own a house site has no inducement to save and can never hope to become a pattadar. There are, however, cases of Panchamas even in the Tanjore District who own their house sites and then manage to save the wherewithal necessary to purchase some lands.

6. If, therefore, the Tanjore Panchama labourer is not to emigrate in future on a scale as large as that hitherto permitted, special means for his relief must be devised at home. It must be conceded that unlimited emigration of labourers is prejudicial to the agricultural interests of the district, but if the mirasdars really understand their interests in the long run they must accept the elementary principle of give and take. Indeed, if there is any one who has to be educated in this matter more than another, I have not the slight hesitation in saying that it is the mirasdar, who must be made to understand that for him the elevation of the Panchama is not merely a question of pure altruism but that his interests demand it. He must remember that it is after all better to have independent, honest, self-relying and self-respecting labourers who have a stake in the paracheri than the Panchamas who in many respects are at present little better than animals.

7. Most of the paracheries in the district are a disgrace to the country and it is high time something is done to better the housing conditions. The anxiety of the Panchamas and other labourers, even at the risk of offending their mirasdars, to become owners of house sites can be easily gauged by the fact that in spite

of the condition of scarcity prevailing last year more than 2,500 men from 140 villages in the delta taluks have deposited with me during the last twelve months the enormous sum of Rs. 40,000 at the rate of Rs. 10, 15 or 20 per head, being one-fifth of the estimated cost of acquisition of each site with a pledge to pay Rs. 2,00,000 in instalments. There has been a steady flow of these deposits in spite of the fact that in a few villages where the Panchamas have applied for house sites, the mirasdar have either boycotted the Panchamas by refusing to give them work or begun to harass them in all sorts of ways. This attitude on the part of mirasdar has no doubt scared away intending applicants in a few cases, but on the whole it has had a most beneficent effect on the character of the Panchamas in their readiness to accept the situation.

8. That the Panchama is discontented with his lot in the matter of house sites is no secret. If he alleges to a casual enquirer that he is happy under existing conditions, it is because he is afraid of the consequences of offending the mirasdar. The mirasdar fears that if the Panchama becomes the owner of his house site he may not work for him. That this fear is groundless will be evident from the fact that in the Tanjore District there are hundreds of villages where the Panchamas do own their house sites, and still work for the mirasdar, and in those villages where house sites have been acquired for Panchamas under the scheme recently sanctioned by Government, the relationship between the mirasdar and the Panchama has not materially changed to the detriment of the mirasdar. This statement is true of all the thirty villages except two where house sites have been acquired, and of the 28 villages except three where acquisition proceedings are in several stages of progress. Granting that the Panchamas in their bid for freedom have to run the gauntlet of a certain amount of resentment on the part of the mirasdar, it is undeniable that the moral and the material advantages accruing to them from the changed outlook infinitely outweigh the disadvantages. Drink has been completely given up in seven villages operated on by the special staff; in some the Panchamas have given up eating carrion. There is no doubt that the Panchama who has become the owner of his house site has learned to be self-reliant, self-respectful, neat and thrifty. The effect of the policy of the Government in respect of acquisition of house sites has not so far been to send away the labourers from their villages. If the Panchamas are made the owners of their house sites, they will certainly be happier and in a more hopeful frame of mind and we may be certain they will produce more wealth for the country. I may

say in one word, the mirasdar's fears are rather exaggerated. Enough has been said on the problem of *manaikats*.

9. Next to the problem of *manaikats* or house sites is the problem of approach roads to paracheries and pallacheries which are almost invariably in the midst of wet fields. The only way to and out of these cherics is by means of the small ridges scarcely two feet wide between the wet fields. The absence of roads connecting paracheries with public thoroughfares and the entire dependence of the Panchamas on the good will of the mirasdar even for the use of this customary field path are weapons which an unscrupulous mirasdar is not slow to wield.

10. But there are many other hardships which the Tanjore Panchama shares in common with his brethren elsewhere. Even if the Panchama is made the owner of his house-site and roads are constructed to afford the Panchama both living and dead an exit from the paracheries and pallacheries, this will scarcely elevate this class unless it is educated and some system is devised for the sanitary improvement of the surroundings of paracheries and pallacheries. In most cases these cherics are very damp and their level requires to be raised. Unless this is attended to promptly the agricultural labour of the district is bound to suffer. What with the drainage caused by emigration and what with the periodical toll levied by epidemics, the agricultural labour of the district which is not over plentiful at the present moment will become daily thinner and thinner and the best interests of the district will suffer if the mirasdars do not rise to the occasion, enter more fully into the feelings of the Panchamas and other labourers and do everything in their power to raise their status. Quite recently, there has been a healthy public move in the capital of the Presidency for the uplift of the Panchamas and a number of public spirited men have in the face of difficulties begun to work in earnest to procure the amelioration of these classes. My hope is that this movement will shortly filter down to the Tanjore District.

11. A good deal can be done by popularizing co-operative ideals among Panchamas not only to procure them cheap credit but to help them in procuring the necessities of life which in their case were procurable only at war prices long before the war was in sight and which now that the dire effects of the war weigh heavily on all people threaten to make life impossible for the Panchama at present. They are cheated not only over the quality and quantity of their purchases in buying the necessities of life but also over their sales of agricultural produce. If by means of co-operation the Panchamas can be rescued from the

clutches of the petty bazaar man, the 'Gombeens' man of the Indian village, and if we can arrange to bulk the surplus produce of the Panchamas and sell it wholesale to respectable merchants, a very large profit can be ensured for the Panchamas. No good will result if this profit is to go to the toddy shop; methods will have to be devised to make this saving a real asset by introducing home-saves and other co-operative saving appliances and the Panchamas must be trained in principles of thrift and economy. As observed by the Registrar of Co-operative Societies Mr. Hemingway 'men of this class if given a chance and properly looked after will make excellent co-operators.' 'While Government may' as remarked by His Excellency Lord Willingdon quite recently in a memorable speech, 'do their best by legislation, by grant in aid and by encouraging the co-operative spirit to improve the present condition of our workers, we can do really little unless we can create and stimulate an active public opinion on this subject, a readiness on the part of all communities to help to solve the problem.' The task is tremendous but I for one do not despair.

12. Experiments have actually been made in a few villages in the directions just indicated. Household stuff is purchased in bulk, according to estimates furnished by the Panchamas themselves, and the result of selling the articles so purchased to the members of Co-operative Societies at co-operative prices is a saving of 30 per cent. Homesaves of the homeliest description, in fact made of clay, have been distributed among members of Co-operative Societies and the savings are periodically taken in deposit to the credit of the members in accordance with well-known co-operative methods. Cornbins of country make have been provided for Panchama villages where the paddy to be sold by producers is collected and the stock will be disposed of to respectable merchants instead of being bartered in small dribbles which afford the buyer a ready means of swindling the Panchama. The time at the disposal of the special staff in the Tanjore District which I have the pleasure of supervising has not permitted of any serious attempt being made to impart even a rudimentary literary education to the Panchamas; but these and kindred measures of reformation are no doubt in the womb of, let us hope, a not very distant future.

The Influence of the war on, and Present Economic Conditions of some of the Sourashtra Community, Madura, South India

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The present study is a section of a larger work on an Economic Survey of the interesting Sourashtra Community of Madura, which the writer has made, and deals with war influences and present economic conditions.

In normal times the dyeing and weaving industries of the Sourashtras have just been able to make a bare living, but when famine has come or any great national crisis, the Sourashtras of Madura have always had an anxious time of distress and actual want.

When the Community was overtaken by the great famine in 1876-77, its resources were crippled to such an extent that its trade was considerably affected, and its people suffered want. But the paternal Government gave it loans, and took other steps to see that it was not wholly impoverished.

The Sourashtra Community in Madura had another trying time in 1898, when it was forced to make application for Government relief. At that time out of about 15,000 persons who were engaged in weaving or dyeing half of them were suffering from want and loss of their usual employment. In their memorandum to Government they state that the distress under which they suffer has been caused by :

(a) the existence of famine in the northern districts, i.e. Ganjam, Vizagapatam, Godavari, Kistna, Cuddapah, and Bellary, and the fall in the export of cloths from Madura in consequence.

(b) the substitution of machine-made cloths in lieu of those locally made.

(c) the fall in the prices of yarns.

(d) the substitution of aniline-dye-powders for the more durable dyes locally manufactured, and the elaborate method of country dyeing.

Take the export trade of Madura Weavers about that time. Venkatachalapathi exported Madura cloths to Guntur as follows:—

		Rs.
1896	export reached	44,384
1897	"	15,699
1898	a famine year	nothing.

Ramaiah Bagavather exported Madura made cloths to Rangoon as follows:—

		Rs.
1896	exports reached	22,987
1897	"	17,544
1898	"	12,838

Similarly, the exports of the Somalinga family fell from:—

Rs. 32,369 in 1896, to
" 24,224 „ 1897, „
" 1,958 „ 1898

Take the details of wages in 1898 in Madura as the result of famine conditions in the North:

1. Process of oiling-mixing with oomari ashes previous to dyeing:—

Wages for such work 2 to 2½ As. per day in 1898. Five years previous, the wages were 4 As.

2. Dyeing:—

Wages in 1898 were 4 As. Five years previous they were 6 or 7 As.

3. Weaving superior counts:—

Wages in 1898 were 5 As. Five years before they were 10 As.

4. Ordinary weaving:—

1898 wages were 3 to 4 As. Five years before 8 As.

5. Process of Sungudi done by women:—

1898 wages were 1 Anna or 9 pies, five years before 2 or 3 As. were paid.

From the above, it will be seen that famine wages are only half of what people get in normal times. On account of these things, together with the lack of technical training and the lack of adaptations to modern improvements, weaving and dyeing have lately become unprofitable trades and in consequence many members of the community have given up their hereditary occupation.

The last and hardest shock which came to these people was in 1914 when suddenly and almost without warning the whole

world was thrown into confusion by the beginning of the Great War. The Sourashtras, having become accustomed to German synthetic dyes, and having lost the art of manufacturing their own dyes, with the prohibition of foreign enemy imports found themselves absolutely without dyes. The price of the small quantity of dyes which happened to be in stock jumped immediately from Rs. 60 to Rs. 600 and more. Even that supply soon became exhausted and the dyeing factories were closed, the dyeing yards were vacated, the people had to do cooly work for a bare living, and to this day we do not know how the people managed to exist. For the duration of the war, the dyeing and weaving trade in Madura was practically killed.

In 1918, the Indian Government was able to secure small quantities of dyes from the British Dyes Company and these pittances were sold out to *bonafide* Madura dyers in seven pounds parcels under the direction of the Collector and the Dye Expert. Even as late as June, 1919, things were not much better and a meeting of the dyers of Madura was called to consider and decide on a larger and more impartial distribution of alizarine dyes to the dyers. The dyers complained that only a few, not more than four or five, had been given tickets for 56 lbs. of dye stuff, another four or five had been given tickets for 28 lbs., but the generality had only 7 lbs. and 14 lbs. a month. The people were very disappointed at being given so small a supply, and said they cannot earn a living wage with this quantity. Most of them have a stock of mordanted piece goods and by the time that they get enough dyes to dye they feared the mordanted goods will waste away, if they do not actually catch fire.

But more dyes are being obtained, and it is a pleasant sight to see the dyeing houses being re-opened, the yards being filled with drying yarn, and the returning activity of an industry which has been for many years a closed business. Mr. Tulsiram in June, 1919, went to England among other things to see if he could obtain a much larger grant of dyes for Madura. The Madura dyers need 300 tons of alizarine every month, and Mr. Tulsiram promised to try and secure that amount from the Board of Trade.

The period for reconstruction will undoubtedly bring with it many problems and difficulties, but if the Sourashtras of Madura will realize that we have entered into a new world after the war and will determine to train themselves for their industry and adjust themselves to the new conditions in this new age then I

firmly believe that there is a future for the hand weaving industry in the city of Madura for many years to come.

Mr. (now Sir Alfred Chatterton) amply bears out this conclusion. He says* :

The Revival of Native Industries

‘In the meantime the evils arising from the lack of suitable employment must be checked, and a system of industrial development devised to deal with the existing state of things. Enterprise on a grand scale can be left to grow in the manner it has done during the last half century and at present need not concern us. Our attention should be concentrated on the decaying indigenous industries; hand-weaving, working in metals, tanning and leather manufactures and all the petty industries which supply the simple needs of the people. Labour must be trained to work more efficiently, there must be less of brute force and more of skill, the primitive tools of the artisan must be superseded by better implements; sub-division of labour must be introduced and from the crude simplicity of each family as a unit of productive effort strong combinations must be evolved either by co-operative working, or by the concentration of manufacture in small factories. That this can be done there is not the least reason for doubt.’

The Indian Industrial Commission’s Report likewise comes to the same conclusion. It says† :

‘There is no likelihood of cottage industries becoming extinct; but improvement in the condition of the workers is not probable, unless better tools and plant are employed and an intelligent sub-division of industrial processes introduced. There is a tendency, which will probably be accentuated, to organize small factories, and this should be encouraged.’

In order to arrive at more or less accurate information of the present economic condition of the Sourashtra community, I prepared a questionnaire on the subject. This questionnaire was submitted to Mr. L. K. Tulsiram, one of the leaders of the Sourashtra community in Madura, and he very kindly gave his sanction to its being carried out. He also promised to help me in the economic survey, and his Head Clerk has actually helped in the gathering of the information required. Then the Chairman of the Municipality, Mr. V. Srinivasachariar, was asked for permission to be allowed to undertake an economic survey of

* ‘Industrial Evolution in India,’ by Alfred Chatterton, Madras, 1912, page 15.

† Indian Industrial Commission Report, 1916-18, page 196.

some Sourashtra families in the First Ward of the city. Permission was readily given, and the work was begun.

The questions were grouped around the following subjects about which information was especially desired: education, wages, prices now and before the war, the influence of the war, family budgets, and needs in order to improve economic conditions.

The average number in the family is five (5). Many families have no children in school, a few families had only one child at school. The reason is the parents have no great appreciation of education, and the work of the children is required to swell the family income. Do you favour technical training? A few said—No. Some did not know what technical training meant. The majority however said—Yes. One man said—‘Yes, I want to educate my sons on that basis to a great extent.’ What is your occupation? the large majority said—Dyeing, Weaving. Women tie knots in cloth for dyeing purposes. Several said their occupation was ‘dyeing’, and from their economic condition one could easily conclude that might be true.

Have you changed your occupation, and why did you change? The purpose of these questions was to find out if any had been forced out of their hereditary work on account of economic conditions. It was found that a number had changed, but very few to any work which is considered beneath their dignity, though they could make far more money at it. Many would sooner eke out a miserable existence than make a change. One man said however—‘Yes, from weaving to dyeing. Because in weaving I will have to work from morning to late in the evening and the wages I get from such work can scarcely maintain the livelihood of my family. I cannot save anything and if any sudden expenditure comes I will have to borrow money from others at high interest and mortgage my house.’ Another man said: ‘Yes, from weaving to selling rice, bringals, oil, salt, and other household requirements. I found out that I could save nothing by weaving, so I opened a small shop to sell sundry articles. But later, seeing that this business is somewhat troublesome and I will have to sit in the shop from morning six o’clock to ten or eleven in the night, I again undertook weaving business which requires less time, from 8 a.m. to 5 or 6 p.m.’

Some are doing cooly work, and during the war many were forced to do cooly work or starve.

The wages of weavers of course vary according to the speed of the weavers and the quality of work turned out. Some make Rs. 15 per month, others Rs. 18; at turban cloth weaving, which

requires two men, each earns Rs. 22 or 23 per month. Dyers make not less than Rs. 20 per month.

Present daily wages		Before the war	
		A.	P.
Cooly man	... 8 to 12 as.	6	0
Cooly woman	... 4 to 5 as.	2	6
Cooly child	... 2 to 3 as.	1	9

Yarn is procured from Madura dealers. A common practice is for a merchant to advance the yarn and receive the finished cloth, for which he pays the weaver a regular rate for cloths furnished. As one man says: 'From the merchant under whom I am only a weaver.' There is a great and needy field here for co-operative effort. Dyes are obtained from Madras or Madura dealers, except during the war when the scant supplies were under Government control and distribution. German dyes are generally regarded as better than English, because the supplies were regular and cheap before the war. One answer was 'because in the German days the chemicals added are better and it is fast and more shiny.'

The price paid for yarn to-day is—Madura Mill yarn No. 20 Rs. 13, dyed yarns Rs. 19. Before the war the price was Rs. 4. The price of dyes to-day is: one rupee nine pies per lb., or Rs. 475 per cask; before the war the price paid was six annas per lb., or Rs. 120 per cask.

The very important question—would a large weaving factory establish in Madura hurt your business? brought out the general answer 'undoubtedly it would', and one man said, 'we would not be able to do any other work.'

There is a Madura Sourashtra Co-operative Society, but it is spending its energy mostly in connection with the problem of dyes supply. The protection and organization of the weavers is urgently needed, or they will not be able to compete with the factory. What do you wish in order to improve your cottage industry? Some of the answers reveal the fact that some people at least realize what their business needs in these new days of reorganization and competition. We need technical training; higher wages; assured supplies of thread, silver and gold thread and dyes. The war affected their business by withholding the supply of dyes, by the very high cost of production, and by the failure of the export trade. There were very few clear ideas as to the future prospects of their business. One man was anxious 'to save something and thus to open a small weaving factory of my own.'

Rice to-day is down or has been to $1\frac{1}{2}$ measures the rupee; before the war it was selling at about six measures for one rupee.

Ten years ago the price was twelve measures the rupee. Kerosene oil second quality has risen from Rs. 2-8-0 to 4-6-0 per tin; and best quality from Rs. 3-3-0 to Rs. 6 per tin.

Family budgets of course differ with each family, and I shall report here only one or two typical budgets :

A		Rs.
Monthly income of the head of the family	...	75
Contributed by other members of the family	...	10

Total ... 85

Monthly expenditure :		Rs.
For rent of house	...	12
For clothing	...	8
For food	...	45
For other expenses	...	4

Total ... 69

Difference ... 16

This family saves on the average Rs. 16 per mensem. They use their savings for marriages, or to spend otherwise whenever occasion arises.

B

		Rs.	A.
Monthly income from all sources	...	7	0
Monthly expenditure :			
For rent of house	...	1	0
For clothing	...	0	8
For food	...	5	0

Total . 6 8

Difference ... 0 8

This As. 8 is put as a ' Chit ' to a merchant. ' This is a poor widow woman, whose husband died some years back, and she has no children. Her future is pathetic. She says: ' I have to adopt some one just to help me by his earnings and support me when I grow old.'

C

		Rs.
Monthly income of the head of the family	...	40
Contributed by other members of the family	...	5

Total ... 45

Monthly expenditure :				Rs.
For rent of house	...	...	...	5
For clothing	...	...	...	2
For food	...	...	...	24
For other expenses	...	...	...	4
				—
		Total	...	35
				—
		Difference	...	10

This man says : ' Can save with the greatest difficulty Rs. 10. I give it to some relative or rich man just to clear off my debts.'

Of course there are many wealthy men, large employers of labour, among the Sourashtras of Madura ; but from the above budgets, which are typical, we must conclude that the great majority of their community are living a hand to mouth existence. It simply means that economic conditions must be improved.

To the last question, these are some of the answers given. What is your greatest need in order to improve your economic condition ? ' Education on technical lines is needed, and also capital to improve the weaving industry.' ' Education is needed. Want of union and capital retard much of our progress.' ' No sufficient capital, which is the primary defect, and I cannot work longer being physically weak.'

From the foregoing evidence it seems to me that the three greatest needs of the community to bring about economic improvement are :

More general education for the children ; technical training and modern methods in the conduct of the dyeing and weaving industries ; and the practice of co-operation for the purposes of credit, and buying and selling.

DISCUSSION

The Effect of Rise of Prices on Rural Prosperity

MR. K. BHATTACHARYA said that in Bengal there was a far greater rise of prices in the commodities the ryot bought than in those he sold, and hence any supposed 'war time prosperity' was fictitious.

MR. T. K. DORAISWAMI AIYAR asked how it was that according to Dr. Harold Mann's figures the necessary expenditure per family in the insolvent class was greater than in the solvent class.

DR. HAROLD MANN replied that the reason was that the number of members of the insolvent families was greater. In fact one of the chief conditions determining whether a family was prosperous or the reverse was the number in family. In the Deccan villages, generally, the more numerous the family, the more it was impoverished.

DR. GILBERT SLATER said that it appeared to him that Dr. Mann's figures led to a different conclusion from that which he had drawn. If he himself had to dispense with a motor car, which was necessary according to a certain standard of comfort, according to Dr. Mann's method of calculation, his deficit might be Rs. 100 per month at one time, and Rs. 200 at another time when the cost of keeping a car was doubled. But really it was the use of a car all the time. If you go without things all the time, the price of them does not matter to you. Similarly with regard to the Deccan villagers who had to go short of some of the things necessary to live up to Dr. Mann's standard. If while prices rose 50 per cent their deficit in rupees increased 25 per cent only, this meant that they could now buy about half the things they had previously been obliged to go without.

DR. HAROLD MANN replied that this was so, and that the correction was valid in so far as villagers met the calculated deficit by going without. But if they met it by borrowing they incurred a greater debt, and their economic condition deteriorated even in the cases referred to.

HOURS OF LABOUR

Several speakers challenged Mr. Burnett Hurst's view that the hours of labour in factories should only gradually be reduced from twelve to ten per day, and advocated either an immediate reduction to that extent, or a reduction to nine or eight hours.

DR. GILBERT SLATER said that there was a world-movement for the reduction of hours to eight per day in Europe and America in which Asia was asked to join, and he believed the chief obstacle to India's coming into line was the fear of unfair Japanese competition. In such a case as this he thought free-trade principles should not be pushed too far, and if after India reduced hours together with the rest of the civilized world, Japanese manufacturers endeavoured to use excessive hours of labour as a means of under selling their Indian rivals, India should impose sufficiently heavy duties on raw cotton and other raw materials exported to Japan, and on imported Japanese manufactures.

THE LIVING WAGE

THE BISHOP OF MADRAS drew attention to an important point raised in Mrs. Whitehead's paper with regard to the rate of wages. He quoted the figures given by her for feeding a family of five people, father, mother and three children, according to the standard laid down for prisoners in jails. It appeared, he said, that the food of a family of five people according to that standard would cost about Rs. 20 a month in South India. In addition to this, clothes, house rent, dhoby, barber and other minor expenses come to at least Rs. 5 per mensem, so that, as Mrs. Whitehead showed, a minimum wage for a family should not be less than Rs. 25 a month, it is notorious that both in Government employ and in private employ a large number of men are paid considerably less than this, and it seemed clear that either the jail standard of food was extravagantly high or the minimum rate of wages in Madras was unfairly low. He appealed to the members of the Economic Conference to make careful investigations on this point and to make their results public.

RAO BAHADUR K. V. RANGASWAMI AYYANGAR said that the Bishop's question could not be answered confidently either by economists or doctors. The exact quantity and calorific value of the food necessary for an adult in any given conditions was still a matter of dispute among specialists, and the older estimates had recently been much altered on revision. On what experiments or observations was the prison scale based?

DR. HAROLD MANN, replying for Mrs. Whitehead, said that the prison scale was based on a series of experiments extending

over ten years by Captain McCoy, of the I.M.S., in jails of the United Provinces and Bengal, published in the Scientific Memoirs of Medical Officers of the Army in India. He obtained very clear and definite results, and the present jail diet therefore rests on a scientific basis, and may be taken as a pretty safe guide in calculating necessary quantities of food.

HOUSING IN MADRAS

MRS. WHITEHEAD advocated the taxation of unoccupied land within the City of Madras, and drew attention to the very large compounds attached to many single houses, with overcrowded areas in the immediate neighbourhood, and advocated the taxation of these also. Other speakers supported this proposal.

TANJORE PANCHAMAS AND MIRASDARS

MR. G. F. PADDISON said that it had been suggested that question of Mirasdars and Panchamas was a moral question like the removal of slavery in the days of the American war. Now, he wished it to be looked upon as an economic question not only here but also in Tanjore. The *mirasi* rights in Tanjore were still being discussed in law courts and the *mirasi* right as claimed was that any man, however high his caste, who had no *miras*, had no right to take any land if the mirasdar wished to have it. The mirasdar claimed to be the owner of the village and if the labourer could not get on with his mirasdar he had no other alternative but to leave the village and his home. It was contended by some mirasdars that if Panchamas secured house-sites, they would go away to a neighbouring village and would not work under their masters. It might be so in certain cases, but the fact that they had to pay down money for a term of years to live in that house would attach them to that village. Who would want to go five miles when he could get employment at his very door? Who would go to Fiji if he could get fair wages in his own place? Though the problem was a difficult one, if mirasdars and field labourers worked together in future years, the smiling fields of Tanjore would continue to smile.

Second Day

Afternoon Sitting

The Chair was taken by Prof. J. C. COYAJEE.

PAPERS

A Plea for the Currencies of the Indian States

BY RAO BAHADUR SARDAR M. V. KIRE, M.A.

Much water has run under the bridges since the rupee stood at two shillings last. In the year of grace 1919, the wheel of fortune has brought it to that figure or a little more. The causes for the fall and rise of the rupee are too well known to need narration.

When the rupee began to depreciate, the first to suffer was the Government of India, and the people also suffered. The former had to pay more of its revenue towards meeting the Home charges and the latter had to export more goods for less money, and the foreign manufactures, which had become a necessity, became dearer. So all interests combined in clamouring for the arrest of the depreciation of the rupee.

The present year has perhaps witnessed the culmination of the appreciation of the rupee. There is now only a section of the community which wishes for an easier rate of exchange, but, owing to the advance in industries made by the country, and the change in the world position, which makes Indian goods a necessity to them, the natives of India do not fear the cheapening of the foreign goods or the becoming dearer of the Indian exports. The Government of India naturally stands to benefit.

There is, therefore, a general cry to stabilize the rupee, irrespective of the rate of exchange. One of the suggestions made to achieve this end is to the effect that British currency notes should be made legal tender in India. The idea which perhaps lies at the root of it is that if there were one currency in all the countries of the world the exchange trouble would disappear. The only obstacle in the way is a political one. In the meanwhile there is the question whether the unification of the currency in almost all the States of India has tended to the benefit of the country.

In India the right of coinage, although a monopoly of the State, was sometimes farmed out to individuals for a consideration. Thus not only currencies were prevalent according to the political divisions of the country, but there were licensed private

mints as well. Over the latter no check seems to have been exercised.

With the establishment of the British Indian Mints, private mints, even in Native States, seem to have disappeared. Only the Governments of these States continued or even established their own coinage. Its exchange value depended upon its intrinsic value. It did not circulate as currency beyond the borders of the State, but it circulated and was stored as silver or gold, as the case might be. Some currencies had a reputation.

Many of the 600 and odd States had thus their own coinage. Out of these now only thirteen have their own mints, others have either amalgamated with the British Indian currency or have closed theirs. The last straw which broke the back of the currencies of the Indian States was the last fall of the rupee, which caused the greatest upheaval in external no less than in internal exchange.

As far back as the last half of the last century, the Government of India passed an act permitting the Indian States to amalgamate their coinage with theirs. The concession was that on one side there was to be the effigy of Her late Majesty the Queen-Empress and on the other the name of the State. The currency of the State was taken over at par. Only a few States took advantage of this offer and the act became a dead letter.

The Governments of Indian States were frightened when their currencies naturally fell as compared with the British Indian currency. Its result naturally was that in dealings outside the States more local currency had to be paid. The class which was most affected by this state of things was the most articulate class and it carried the day. The easiest solution was to abolish the debased currency and it was followed at the sacrifice of the political rights of the States.

Apart from them, however, the economic advantages of the separate currency were overlooked. Some attempt could have been made to maintain it. It would have been possible to adopt the device which the British Indian Government did, viz. making the rupee a token coin, without adopting a gold exchange standard, as the States had no direct dealings with countries having a gold coinage. But the Indian Government adopted this measure after most of the States had abolished their coinage.

The existence of separate currencies had at least three economic advantages. In the first place it prevented the augmentation of the British Indian currency. It is now a well-

established doctrine that inflation of the currency raises prices. The existence of different currencies in the country acted as a check on it.

In the second place a currency of its own enables a State to regulate its economic life. In States which still maintain their currency it has been possible by stopping the export of food grains and other necessities produced within it to diminish the effect of the high prices prevailing elsewhere. It is obvious that in order to achieve a perfect success in this matter, a State must be either self-contained or primitive, yet in any State a currency of its own must offer facilities in this respect.

Lastly, the existence of different currencies maintained a business in the country of the nature of that which is conducted by the exchange banks. A roaring trade was carried on by Shroffs or indigenous bankers. In the already few openings for trade in India, a gap has been caused by the abolition of the currencies of the Indian States.

Our Currency Problems

BY B. F. MADON

I. In a paper read before this conference in its first session in Calcutta at the end of 1917, I had tried to expound our Currency Problems as they then existed, and the remedies that to me appeared the most suitable.

II. Two years have since passed by, and our situation instead of having been improved, has become very much worse owing to the neglect of our Currency authorities to take what I conceive to be the right measures at the right time. Not only have they failed to take the right measures at the right time, but they have even contributed to make the situation what it is by their own action. The one principle that ought, I think, to have guided them in all their measures was to see how they could do *without* more silver. Instead of this, all they tried to do was to acquire as much silver as they could from anywhere, and at almost any price, so much so that they have exhausted the only important reserves of silver the world had—I mean the silver Dollars in the American Treasury—and have thus finally brought us to a pass where this country is absolutely at the mercy of the American Silver Ring, unless we have the courage even now to show a bold front, and to stand out of the silver market, and to let it be known that we are going to do *without* more silver unless we can get it on our own terms. The misguided action of our Currency Authorities has already helped this Silver Ring immensely, as it has led to what is practically the fixing of a minimum price for silver for several years to come of \$1 per oz., because this is the price at which the American Government is bound under the Pittman Act to buy fresh silver to replace the dollars now melted down. This minimum price has greatly fortified the position of the Silver Ring, and to that extent made it more difficult to get silver back to reasonable levels in the near future.

III. But, bad though the situation now is, so overwhelmingly strong is the position of India as a purchaser in the silver market, that, if our Currency Authorities resolutely set themselves to use the power which this position gives them in the

right way, we can still get the situation under control, and gradually get back to sound conditions.

IV. The principle, which I think ought to guide us, is still the same, viz. *to do without more silver*. The remedies also are the same as were advocated in my paper on the subject two years ago. Only, as the situation has grown worse, the application of these remedies has grown much more difficult. However, if properly applied, even now, there can be no doubt of the ultimate success of such measures. These are

1. A much freer use of the one-rupee note.
2. Temporary suspension of the cashing of currency notes.
3. Issue of plenty of fractional currency to insure the one-rupee note being cashed in such subsidiary coinage without discount.

The second measure advocated above is being cried down in many presumably well-informed quarters. It is called INCONVERTIBILITY, and we are told all eminent authorities were agreed on the extreme undesirability of such a step in any country, as it practically meant the financial insolvency of that country. All these objections are really based on a superficial knowledge of the subject of currency in general and of the Gold Exchange Standard in particular. I shall take the subject up again in a later part of this paper, and meanwhile will note here two other remedies that will go to some extent to meet these misconceived objections, and will at the same time help to ameliorate our currency situation. These are

4. Instead of total temporary suspension of the cashing of notes, the cashing be continued to a limited extent, by making the rupee legal tender only up to Rs. 15. (Much of the outcry against suspension of cashing—I purposely avoid the word CONVERTIBILITY for which the reasons will appear lower down—is based on the ignorance and the illiteracy of the masses but looking to their average income, and their average disbursements, no individual unit of the masses here can possibly want to cash more than Rs. 15 at any one time, and so their requirements would be met by the facility to cash up to Rs. 15 at a time).

If even this is not considered advisable, and it is thought necessary to continue the cashing of all notes presented at our Currency offices, then we should

5. Reduce the proportion of pure silver in the rupee and bring the silver contents down sufficiently to prevent the temptation to the melting down of the coin.

This last proposal is also strongly deprecated in quarters that should be better informed. It is called 'debasing,' and we are told Gresham's Law would at once operate, etc., which again shows a very superficial knowledge of currency in general and the Gold Exchange Standard in particular. We shall go into this point also at greater length later on in this paper.

V. Of the five proposals above set forth, the fourth and fifth would become unnecessary if the first, second and third were efficiently put into practice. They are also less scientific than the other three proposals and are merely put forward as a sop to prejudice.

VI. The first proposal, viz. a much freer use of the one-rupee note, has fortunately very few opponents now. When this note was about to be introduced, we had all sorts of predictions of its failure from reputed authoritative quarters, but the fears that the masses would not accept notes in payment, and would insist on coins (rupees) have proved to be largely imaginary. We have remarkable testimony of the fact from no less an authority than the Chairman of the Bank of Bombay. At the general meeting of shareholders of this Bank, held on the 7th August, 1919, the Chairman, referring to notes, said :

- 'It was then (i.e. a few years ago) generally supposed that the ryot would under no circumstances accept payment for his produce in currency notes. *The unexpected has however happened*, as we find, in places like Berar, where the ryots *had never seen currency notes until last year*, that these were *taken freely* after a few months trial.
- 'The ryots were very unwilling at first to accept notes, and to give them confidence, it was decided to exchange them for rupees from the currency chests at our branches up to Rs. 100 to each individual ryot, a process which gave them their first lesson in currency.
- 'The second was when they discovered they could pay their land revenue to Government in currency notes.
- 'The result was that the discount on notes, which was anything from one to ten per cent at the beginning of the cotton season *disappeared altogether* before the season was finished.'

The italics are mine. This testimony should be convincing enough for the Bombay side. Let us see what they have to say

on the Calcutta side. In their representation to the Indian Currency and Exchange Committee, the Bengal Chamber of Commerce say

‘However reluctantly, the people of India are being gradually educated into the use of Notes as a form of currency.

‘This is particularly noticeable *from the readiness with which*, in many parts of India, but particularly in ‘the big towns, *one-rupee notes have passed into circulation.*’

They say again

‘As has been shown above, *the use of notes has rapidly developed in the Jute Districts of Eastern Bengal.*’

and they give the following very interesting figures of notes and rupees remitted by the Bank of Bengal to the Jute centres of Dacca, Naraingunge and Chandpur for the busy season August to October :

	1913	1918
total remitted during period	680 lacs	618 lacs
of which amount in notes was	2 „	568 „

It will be seen that while in 1913 the percentage of notes was negligible, in 1918 it was as much as over ninety per cent. The figures are highly instructive. When such wholesale introduction of the Note Currency is possible in Bengal where it was comparatively unknown up to two or three years ago, it is clear that the ryots do not object to Note Currency as such, but because they are made to suffer losses whenever they have to change a note. There is no further warrant for the hesitation shown by our currency authorities in the pushing of the Note Currency. What they should now do is to do their best to make it take the premier place in our circulation, and to remove such disabilities as now exist in the way of its being even more freely welcomed by the masses.

VII. Some of the disabilities complained of refer to the form of the note or the texture of the paper used, and we are told the matter is having the close attention of the authorities. But the principal disability that stands in the way of the small note to-day is the discount that has to be paid on changing it. The fundamental fact to be here borne in mind is that it is the wants of the ryot that we have to cater to, and that he has, individually, very few rupees or one-rupee notes to dispose of at any one time. We have to remember that the change the ryot wants is *annas* not *rupees* and that what is wanted is plenty of *fractional* currency. Oblivious of this fundamental fact, the currency authori-

ties have devoted all their energies night and day to the coining of whole rupees, and allowed the subsidiary coinage to be scarce so much so that in some districts postage stamps had to be made to serve the purpose of such subsidiary currency. What should be done is

- (a) to provide as much of this fractional currency as possible, and
- (b) to change the one-rupee note into such fractional currency free of charge to the extent of two rupees at a time.

The bulk of the disbursements of the ryot are in *annas* particularly in rural areas. If the ryot can get by the above arrangement *full sixteen annas* for his one-rupee note, he will be able to do his marketing without any loss by discount on the note, and his confidence in it will very much increase. The *free of charge* changing facility should *not* be extended to the metal rupees, but confined only to the notes.

VIII. This issuing of plenty of fractional currency is the third of the proposals, put forward at the beginning of this paper. But it is a most important adjunct of the second, viz. the suspension of the cashing of currency notes. In fact, to make such suspension work smoothly, plenty of fractional currency is absolutely essential. The melting of rupees is to-day a very profitable operation, and if the issue of rupees is stopped, the cute village bania will raise a great hue and cry in the name of the ryot. If, however, the ryot finds that he is able to get full sixteen annas for his note, the manœuvres of the bania will fail.

IX. I will now come to the charge of INCONVERTIBILITY and all that it implies that is levelled against the second proposal. What is convertibility? Why is it so much prized? Convertibility is the ability of a country to pay its creditors in specie. It is the counter-part in the case of a merchant of his ability to pay his creditors in cash. In each case it means the solvency of the country or the merchant concerned. The contrary of this state of things—INCONVERTIBILITY—is the inability of a country to pay its creditors in specie, and is the counterpart in the case of a merchant of his inability to meet his creditors' claims in cash. In each case it means insolvency of the country or the merchant concerned. It is on this account that all authorities have most severely condemned and rightly condemned Inconvertibility. However, let us take our simile further. The merchant would not be solvent if he offered payment in faked coins. The country that offered to pay in tokens would not be considered solvent either. The real payment by India that counts in international markets is in Gold.

X. In ordinary Gold Standard countries Convertibility is prized because that is the only way in which to get Gold for foreign payments. The currency authority in such countries does not concern itself to see where the Gold goes once it has been paid across the counter of the currency office.

XI. In Gold Exchange standard countries, Gold is not issued across the counter of the Currency office. The Government undertakes to find the Gold for foreign payments in change for an equivalent in token currency presented to it for the purpose.

XII. India has been on the Gold Exchange standard for the past twenty years. Ever since we threw up the silver standard we have never had true convertibility in this country. Our notes have not been convertible into Gold but into *tokens*. When a man presented Rs. 1,500 in currency notes at our currency offices, he got 1,500 metal rupees, it is true, but they were no good to him for payment to any of his creditors abroad as the equivalent of £100 as these 1,500 rupees, as bullion, were worth only about £60 all over the world. To make his payment good, he had to again convert these 1,500 metal rupees—these 1,500 tokens for 16*d.* worth of Gold—into £100 in Gold. The man-in-the-street might be excused for innocently believing that we had full convertibility here because he could get these *tokens* against his currency notes, but we should have expected better from leading commercial bodies like Chambers of Commerce and Mill-Owners' Associations that have come forward to express an authoritative opinion on our currency problems. If our Convertibility is not in Gold as it should be but in tokens, then it is a sham, and there is no sense in upholding such a sham in the name of sound currency, particularly when the keeping up of such a sham is extremely harmful to the interests of this country.

XIII. The various bodies and individuals that have recorded their protests against the suspension of the cashing facility have done it on text-book precedents, but they have either not understood, or have overlooked the fact that ever since we threw over the silver standard and changed over to gold, our rupee is no longer the standard coin but is only a token, and the need of safeguarding convertibility as taught in text books is not meant to apply to convertibility into tokens.

XIV. Many people in India seem to think that our rupee cannot be a token because it is unlimited legal tender in this country, but being unlimited legal tender does not necessarily make a coin the standard coin. The fundamental quality of a standard coin is that its face-value should correspond to its

bullion value. In tokens, the face-value is on the contrary much higher than the bullion value. In all the pre-war years since the memorable changes of 1894, our rupee has always been worth much more than its bullion value, i.e. it has always been a token ever since we changed over to Gold.

XV. In ordinary Gold Standard countries, gold is allowed to pass into internal circulation, and so Gold coins alone (i.e. standard coins alone) are unlimited legal tender. On the other hand, in Gold Exchange Standard countries, where the very object of the system is to save gold from being dissipated in internal circulation, there are no gold coins in circulation, and therefore necessarily, tokens are unlimited legal tender, but they are none the less tokens.

XVI. It is want of appreciation of the fact that under the Gold Exchange System, our rupee, although retaining its old name, has fundamentally changed in character, and is now only a token, that is responsible for the protests against the suspension of cashing of the Notes. If it were but properly grasped that under the Gold Exchange System, the rupee is now only a currency note printed on silver, the futility of insisting on convertibility of one kind of *note* into another kind of *note* would be at once seen and people here would begin to understand that our so-called convertibility is a sham, and that in fighting to uphold it, we were fighting, not for the substance, but for the shadow of Convertibility.

XVII. We shall now consider the effects of such a suspension of the cashing of the note. One of the most important will be an immediate rise in the price of bar silver in this country, unless we forestall it by suitable measures. As is well-known during all the rise from forty-eight to sixty-four pence the price of country bar silver has remained here very steady @ Rs. 113-114 per 100 tolas. When we remember that no fresh silver has been allowed to come in on private account, and that a considerable quantity must be daily going into consumption for ornaments, the steadiness of the local price is extremely significant. To my mind it clearly points to a fresh stream of silver supplies steadily coming on the market at this level, and points to the rupee being largely melted down for ornaments. Nor is it anything to be surprised at, when we remember that it would require the melting down of only 110 rupees to get 100 tolas of silver instead of the 113-114 that it costs in the market.

XVIII. It therefore seems to me that if the stream of silver supplies from the Mints is dried up owing to suspension of cashing of notes, the demand for more silver for ornaments will

run up the price of silver, unless supplies are provided in some other way. My suggestion would be that the Government should supply this silver to the market as they are now supplying gold. There will be no danger of London prices running away, as the purchase in London (or New York) would be made by the Government as it is now being done. Only, instead of passing *through* the Mint into the melting pot, this silver will hereafter go direct to the melting pot, and save the time and labour of the Mints for the very necessary work of turning out large quantities of fractional coinage. To discourage the melting of the rupee, this silver might be supplied @ Rs. 109 or less per 100 tolas, as the Government can very well afford to do even at present London prices for silver.

XIX. After the suspension of cashing of the note has been established for some time, and found to work smoothly, as I feel convinced it will be, I would go one step further, and

(a) suspend the import duty on silver

(b) remove the embargo on private imports of silver.

Once our internal circulation has been based on currency notes that are inconvertible for *internal* requirements, I see no objection to, and even think it will be an advantage, to allow both metals to freely come in and go out as *Commodities*.

XX. Here it might be advantageous to point out the need of clearly distinguishing between the functions of Gold as a commodity and gold as money of international trade, because such distinction is important to properly follow the working of the Gold Exchange Standard System. As students of the subject know, the main object of this system is to concentrate gold in a central reserve from which international payments are to be met, and to abolish the waste of money and energy involved in shipments of gold to and fro which is the practice under the orthodox Gold Standard System for the settlement of international balances. Gold has frequently in the past been diverted from India to the London Central Reserve and for want of a proper appreciation of the above distinction, people in India have loudly clamoured against what they call this great iniquity of depriving India of the gold that it had a right to.

XXI. The fact is that two kinds of gold have to be imported into Gold Standard countries. These are

1. Gold to be used in the arts or for ornaments, etc.
2. Gold to be brought in in settlement of the balance of trade.

The former is imported as a *commodity* and to that extent swells our import balance, just as Manchester cloth or Birmingham

hardware would do, and has nothing to do with the balance of trade. It comes in like any other commodity if India is willing to pay for it at the current rate of exchange, as then it is profitable for gold dealers to order it out. When the dealers do not care to pay for this gold the price required at the current rate of exchange, it ceases to be bought for account of the Indian market, and then, if a sufficient quantity of other commodities has not been bought to equal our export balance, the amount remaining in our favour has to be brought in *in cash*. Then the bankers procure the cash (sovereigns, dollars, yens, etc.) and ship them to India in settlement of the trade balance. If the Secretary of State is willing to do it, they hand this gold over to him and get the equivalent in local money from the Treasuries in India. The Secretary of State charges for such service a certain amount which is the difference between the par of Exchange and the Gold Point, and the country is to this extent the gainer. But, and it is this that I want to emphasise, this action of the Secretary of State does not divert a single ounce of Gold that India wants to use in *the arts*. Provided, and this is a most important proviso, provided he sells his bills against such diverted gold at the *full Gold Point Rate*. It is this that India should really insist on.

XXII. We shall now turn to the fourth and fifth proposals named at the beginning of this paper. The fourth proposal is that if complete refusal to cash notes is not deemed advisable in view of the illiteracy of the masses, we might arrange to give rupees for notes to the extent of Rs. 15 at a time, as this amount will amply cover the needs of any individual unit of the masses. Limiting the legal tender quality of the rupee will give a *quasi* legal sanction to the refusal to cash more than Rs. 15 at a time, but it is not going to satisfy the profiteers in gold and silver who see they could make very large and very safe profits for every gold or silver coin that they could induce the Government to part with in exchange for currency notes. Therefore, this measure is sure to be met with a great hue and cry about the rights of the ryot by these profiteers. I would personally prefer that no more rupees be given out now, as all *bona fide* requirements for currency purposes can be amply met by notes and by fractional currency.

XXIII. The next proposal—reducing the proportion of pure silver in the rupee and bringing down the silver contents sufficiently to prevent the temptation to melting—is the next in importance to suspension of the cashing of the notes, and failing this last mentioned remedy, is in fact the only possible solution of our present difficulties. Because if our export trade is given a

fair chance, there is a certainty, in view of very favourable harvests and high prices in foreign countries, of a heavy favourable balance of trade again next year. Large amounts of note currency will issue here in payment of these exports, and if the cashing of the notes has not been suspended, a very large quantity of rupee coin will have to be found to meet the encashment of the notes. If the full 165-grn. rupee is continued to be issued, much of it will continue to find its way into the melting pot, as it pays so handsomely to do it, and the situation will continue to grow worse. If, therefore, our efforts at providing the necessary coinage are not to be stultified, the only way is to turn out a coin that *will not pay to melt*. This again is no new or untried measure. It has been tried over and over again since 1906 by other countries that run on a Gold Exchange System. However, here again owing to want of a proper understanding of the position of the rupee under our Gold Exchange Standard system, we find strong opposition from various quarters to this proposal. It is called 'debasing' and we are again told it is against all sound currency doctrine. Yes, debasing is wrong and that because by putting less metal into a coin than had been agreed upon, you really deceive the man who has to get payment in such coin. Thus if payment of say £100 is due to any one, it is tantamount to 12,344 grns. of standard gold being due to him, and reducing the pure gold contents of the sovereign would be trying to cheat him of his due, and would be a fraud. Similarly, when we were on a silver standard in India, i.e. previous to the closing of the Mints in 1894, if Rs. 100 was due to any one, it was tantamount to 100 tolas of standard silver being due to him, and reducing the pure silver contents would be cheating him also of his due, and would be a fraud.

XXIV. After 1894, our rupee of yore has remained a rupee only in name. When a man sells anything to me for Rs. 100 he has a right, not to 100 tolas of standard silver as was the case before 1894, but to 1600*l.* worth of *gold*. (I speak of the pre-war period.) With silver at 24*l.* as it frequently was between 1894 and 1914, the Rs. 100 would have actually bought more than 150 tolas of standard silver in the open market if my man had so wished it. In other words, since 1894 a rupee has *ceased* to represent a tola of standard silver. It has on the contrary represented a certain quantity—one-fifteenth of a sovereign worth—of standard gold. Since its character has been so changed, and it has become a mere *token* for a certain quantity of standard *gold*, it is clearly immaterial how much *silver* it is made of, because it is not the *silver* in it that enabled us all these years to get 16*l.*

worth of gold for it. It was the guarantee of the Government under the Gold Exchange System that really did it. To talk of debasing in connection with our rupee is therefore totally to misunderstand its present character. To those who do it, I may ask 'If it was right to have only nine annas worth of silver in the rupee in 1914, why is it wrong to have the same nine annas worth of silver in the same rupee to-day?'

XXV. There is another set of opponents of this measure who base their opposition on the illiteracy of our masses, and claim that such a step will create great distrust in the Government if not actual disaffection. It is not easy to reply to this criticism from past experience in India itself, but we have experience of similar reduction of the silver contents of the principal coin of the masses in the Straits and elsewhere. The populations there are equally illiterate, and yet repeated reductions have met with comparatively little opposition. As pointed out in an earlier part of this paper, the individual unit of the labouring and agricultural classes cannot at any one time be the holder of more than a few coins, and he does not understand, and will not care, for weights and finenesses of coins so long as the *purchasing power* remains unaffected and the masses find they can procure the same quantity of other commodities with the new coin as with the old. If the masses can be satisfied on this point and they would soon be so satisfied from their transactions with the Railways, Post Offices, etc., there will be no fear of the new coin being rejected to any appreciable extent.

XXVI. Here, again, proposal No. 3, viz. an ample supply of fractional coins and facilities for cashing in such fractional currency will prove a most powerful help, because the masses would then find that they were getting without trouble *full sixteen annas* for the new coin, and this would at once give them confidence in such new issue.

XXVII. The next most important objection to this proposal comes from people who base it on so-called scientific grounds. They learnedly speak of Gresham's Law, and tell us that it has been established that when two coins of different weight are made to circulate simultaneously, the lighter one inevitably drives out the heavier. What they forget is that Gresham's Law is merely a statement of the very human fact that where the existence of two such coins gives merchants or bankers the chance of making a profit, they will make it. Thus, if there were by some accident sovereigns of 124 grns. issued instead of the regulation 123·41, people would soon begin to discriminate, pick out the heavier coins, turn them into bullion, and exchange 123·44 grns.

of it for another regulation coin, and pocket the profit of about half a grain. This process will continue until all the heavy weight coins had been sought out, and profited by. But, what we should remember is that the impelling force is not merely the fact of heavier weight, but the certainty of *profiting* by such extra weight. If there was no profit, nobody would bother about seeking out the heavier weight coins. Now, it is only in standard coins, that have their face value equal to their bullion value, that this can happen. In tokens, the face value is already much higher than the bullion value, and it does not pay to break up a token coin that happens to have a higher bullion content than a similar other coin. Thus, to take our nickel two-anna pieces, if we happened to have side by side coins containing 75 per cent pure nickel and 90 per cent pure nickel, the last would not disappear, because even 100 per cent pure nickel of the weight of our two-anna piece would not be worth two annas *as bullion* (as *metal*.)

XXVIII. Now, under our Gold Exchange Standard system our rupee is also a token coin, depending for its value not on its bullion contents, but on the guaranteed gold price fixed for it by Government. We all know that bar silver has frequently sold in the Indian markets at Rs. 65 to 70 per 100 tolas pure. This means that the rupee, which is only *one* tola of standard silver, has been able to buy *more than one-and-a-half* tolas of such silver in the open market. Now, if, when silver was quoted at such prices, we had two kinds of rupees, in circulation simultaneously, one our present 165-pure rupee and the other the proposed 105-grn. pure rupee, *Gresham's Law could not have operated*. Merchants, etc., would know that even with the 165-grn. pure rupee they could buy more than 200 grains of pure silver in the open market, and they would therefore use it *as coin* in order to procure this *larger* quantity of silver with it. What surprises me is that these people who talk of Gresham's Law without understanding what it is fail to see that *at present this Law is actually in operation amongst us for the past two years*. At the price for country bar silver that obtains here for the past two years it has proved profitable to melt down the rupee, and therefore Gresham's Law has already been operating with the result that the rupee coin is disappearing from circulation even faster than we can mint it.

XXIX. I have already said in the beginning of this paper that our situation has become very much worse to-day owing to the neglect of our Currency Authorities to take the right measures at the right time. If a new coin of the kind proposed had been issued by our authorities when silver was under Rs. 100 in our Indian markets, as it was even two years ago, it would have

kept circulating simultaneously with the old coin, because the *purchasing power* of the latter would still have been greater than its melting value. To-day with country bar silver @ 113, the problem is much more difficult, but it is not yet past remedy, and it is not statesmanship to helplessly look on, and allow matters to grow worse. We shall now consider how to set about this reform.

XXX. *The key to the problem lies, as will be perceived from the preceding paragraphs, in devising means to lower the Indian price of silver to just below the point at which it would pay to melt down the rupee for ornaments.* The village silversmith, a very cute and calculating person, will do the rest.

XXXI. What is this paying point? Our coin being 11/12 fine, it takes just 109 1/11 rupees melted down to give 100 tolas of pure silver. There is further the cost of the operation, and the risk of doing it as melting has been made penal. Therefore, no one in his senses will care to melt down the old rupee, if there is not an *appreciable profit* on such operation.

XXXII. Our first step therefore should be to *provide silver direct to the market* at Rs. 109 or less per 100 tolas, as suggested in para XVIII. Some people will say that when the very source of our troubles is the difficulty of getting sufficient silver for coinage, this proposal to apply silver to the public is an absurdity. I would point out in reply that what we are actually doing is something still more absurd. Government is at great pains to buy silver in London and New York, it makes gigantic efforts to mint it into coin, and then—all this coin disappears and all the labour is wasted. This may seem an exaggeration, but in a very informing article in the *London Times* of July 21, 1919, believed to be from the pen of some one high up in the Indian Finance Department, we find the following :

‘From the last rupee Census, and from the coinage returns, the active circulation in 1918 may be taken to be 2190 million rupees. . . . Despite the year’s large coinage, this figure was *actually 80 million less than that of 1917.*’

This means in plain English that all the minting of the year 1918 had been sheer waste of energy and had not added a single coin to the effective circulation. It was like pouring water into a sieve.

XXXIII. Instead of wasting time and energy in this way, would not the Mints be far better employed in turning out subsidiary coins, which are so badly wanted, and the presence of which would greatly help to keep our small notes at par? Would it not be more sensible to pass the silver on to the trade

as bullion, and thus prevent further encroachments on the supply of coin in circulation ?

XXXIV. What we should therefore do is to place such silver as India is hereafter able to acquire on reasonable terms on the market here at Rs. 109 or less. For coinage, we have for the present all we need in the fifty-six crores that the Currency Treasuries now hold in the shape of coined and uncoined silver. The figures are on the basis of 11/12ths fine coin. If the new coin is only 7/12ths fine, as I think it should be, there is enough to give us 88 crores of the new coin, which will be ample for all requirements over the next twelve months, supplemented as it will be by some imports of Gold.

XXXV. It might be said that minting all this new coin is a very large order, but failing suspension of encashment of notes, this is the only sound and *tried* remedy for our currency difficulties. The problem of minting is also not as tremendous as it might appear at first sight, because the situation will automatically grow easier and easier as the coining proceeds, as these new coins will not disappear from circulation as the present coins do, there being no inducement to put away these new coins, and the state of the circulation will therefore steadily improve, and make further coinages less urgent.

XXXVI. The next step is to withdraw the legal tender qualification from all rupees coined before 1919 from a certain date to be notified, say six months from date of notification. After such date, the old rupee is to cease to be legal tender but is to be exchangeable into the new coin, or into currency notes at the Government Treasuries for a further period of eighteen months.

XXXVII. If the thing is efficiently handled, and a supply of new coin is made ready before the new system is inaugurated, I believe it will be found that after some initial hesitation, the new coin will circulate freely, and if silver prices are lowered here by providing supplies of fresh bullion as suggested above, the old rupee will be rapidly returned to the Treasuries before it ceases to be legal tender, and thus loses its full sixteen-anna purchasing power.

XXXVIII. I need not repeat here again that in my opinion this means of remedying our currency situation is but a poor next best. The best and soundest remedy is the suspension of encashing facilities, and as representative bodies and even an authority like the Bank of Bombay now agree that in view of the reception given to the small note, the question of inconvertibility as they call it was now looked upon with less apprehension than formerly, our Currency Authorities should now lose

no further time in adopting this very necessary measure. They should not delay because silver is still obtainable at a price. If silver is obtainable at reasonable levels, they might buy it and keep it in the reserves, thus strengthening the backing of the notes.

XXXIX. There are apprehensions in certain quarters that the present coin (165-grn. pure silver) would all disappear in case encashment was suspended. I have explained above that it will so disappear, and that into the melting pot, but only if silver is unobtainable in any other way. However, even assuming that the old rupee disappears, it will only be what has already been happening to it during the past two years, in spite of the great efforts made to maintain the so-called convertibility by enormous fresh coinages. Suspension of cashing of the notes will at least prevent this process going further, and preserve the fifty-six crores now in the Treasuries, and more that we might hereafter acquire, from being dispersed in the circulation, and disappearing. In view of the extremely strained situation of the silver market, any further delays in adopting this measure will be highly ill-advised.

XL. Another thing that the Authorities might seriously take in hand is the import of securities here to supplement the present very inadequate imports of commodities and of treasure. This might at first sight appear to be a matter for private initiative in which Government need not interfere, but I would urge upon them the necessity of this step *as an urgent currency measure*.

XLI. When Government Sterling Loans were being placed in England @ $3\frac{1}{2}$ per cent, Railway Debentures of Indian Railways have been issued even @ 4 per cent. My suggestion is that Government issue here Railway Debentures @ $5\frac{1}{2}$ to 6 per cent and with the proceeds buy up the Debentures now held at Home. It should not be difficult to do so, as these are mainly held by big Insurance Companies, and these Companies can at once re-invest in other Home securities without loss of interest yield. The British Government has previously commandeered securities in order to redress the balance of their indebtedness to America and with some exertion on their part, it should be possible to get hold of these Sterling Debentures for us, and replace them by Debentures in *rupees* floated here, and thus help to redress our trade balance.

XLII. Another thing that we might very profitably do is to take advantage of the speculative fever now seen in Bombay and Calcutta, and other important centres, and guide it into

the right channels, i.e. into sound investments, while greatly helping at the same time to ease our currency situation. The public here has now got plenty of cash to invest, and is looking for something more tempting than a safe 6 per cent as is evidenced by the great avidity with which the ordinary shares of new companies are taken up. The Government might consult the leaders of the Calcutta and Bombay stock markets and devise means of bringing over to India, and converting into rupee-companies, the many tea, rubber, etc., companies now operating in India itself, and in Ceylon and the Straits. Shares of these companies are already bought and traded in by the knowing few, but the general public holds aloof, as the difficulties of buying shares in England and having them transferred to one's name here are very great, and these same difficulties stand in the way of rapid realization of one's holdings. Special facilities are provided by a few companies by having an Indian register, but even these facilities are far from satisfactory, and if wholesale investment in such securities is desired,—and it must be wholesale if it is to exert any beneficial influence on our currency situation,—the Companies must be brought bodily over here. A stray company here and there is already doing this on its own initiative, as at the present rate of exchange the conversion can be arranged on terms very profitable to the English holders. But what is wanted is systematic action by Government to get many more companies to do the same, and the removal of any technical difficulties that might delay the operation.

XLIII. While these lines are being penned, the recommendations of the Indian Currency Committee are yet to be formulated, and I would in conclusion urge upon the authorities the very great necessity of action in at least one direction at the earliest possible moment. It is in the direction of reassuring the public that the rate will not be allowed to go beyond a given figure, say 24*d*.

XLIV. During the first upwards movements of the rate, the export trade was clamouring at the losses it was incurring but the import trade was in great glee, because wholesale dealers who had bought in sterling thought they were going to make great profits. These importers have been disillusioned. They find that the upcountry buyer also knows that exchange is daily going up, and that he is therefore postponing his purchases. Consequently, purchases from Home that had promised to show good profits now show losses, as the demand remains weak. That a big demand must be there is undoubted, because the crops this year are all reported to be very good. What the

upcountry buyer wants before he will place his orders is an assurance that the price will not go down the next day owing to another turn in exchange.

XLV. I urge that the Currency Authorities should now give this assurance even in their own interests. They want India to buy heavily of foreign goods to reduce our need to import gold or silver. India is ready now to buy heavily if Government but gives the word. That word is an assurance to the upcountry buyer that *Exchange will not be allowed to go higher*. The other side of the question, i.e. whether exchange will go lower should be left open. This does not in any way bind down the Government, as the lower side of the rate is entirely under their control through offers of Reverse Councils. What I suggest is that while an assurance should be given that exchange will not be allowed to go beyond a named figure, (which should be the current figure at the time such action is taken), nothing should be said as to the possibilities on the other side. This will be considered to be an advocacy of instability in Exchange, but under present circumstances, it is highly desirable to leave a certain amount of uncertainty on the lower side, because the object to be aimed at is to make the upcountry buyer lay in stocks freely and while guaranteeing that the rate will not further advance will embolden him to come into the market, a bit of uncertainty as to the lower side of the Rate will prove a great incentive to active purchases on his part, as with any signs of weakness in the Rate, he will be induced to hurry up his purchases, before the price of imported goods rises under an unfavourable movement of exchange.

XLVI. Such a measure will, on the other hand, discourage exports, because the foreign buyer will be afraid of our rate going down, and making his to-day's purchase too dear, and will hesitate, and book sparingly, hoping to do better later on. The result will be a tendency to *decreased* orders for our goods from *foreign* countries, and *increased* orders for *imported* goods from our upcountry centres, and thus the totals of our exports and our imports will tend to come closer together than they are to-day.

XLVII. Before closing this paper, I would like to once again emphasise the great need of promptly devising measures to enable us to do without silver before it is too late. We should be warned by the situation lately reported from France, where the silver coin has practically disappeared. Another penny or two rise in the price of silver, and the subsidiary coinage of other important countries will be exposed to the same risk, and the efforts made by these countries to safeguard their own

position will powerfully affect our own currency situation. The impression seems to prevail that if our rate of sterling exchange goes up sufficiently high, India's demand for silver will automatically cease. Those who think so appear to overlook the fact that our real difficulty is the absorption of silver by the masses for ornaments, etc., and this absorption will go on so long as their condition remains fairly prosperous (and good rains this year ensure this prosperity for another twelve months). As the Mints are to-day the only source through which fresh supplies of silver can be had for ornaments, this source will continue to be drawn upon. In other words, rupees will continue to disappear from circulation, unless we *make the operation unprofitable*, or *supply fresh silver* direct to the market *at a lower rate* than what the melted down rupee would cost.

The Indian Currency

By J. A. WADIA

The recent rise in silver to 64*d.* per ounce has once more forced this question upon the notice of the Indian Government and the Indian public. After the closing of the mints in 1893, silver fell at one time to 24*d.* an ounce. The Government of India long before 1893 had set its heart on a gold standard, and they repeatedly moved the Home Government to come to their rescue. The Home Government was evidently better informed than the Indian Government, and declined to move in the matter for a long time; and it did its very best to throw cold water on the efforts of the Government of India in the direction of a gold standard and a high fixity of exchange. I will quote here from a letter, dated November 24, 1879, which was addressed by the Lords Commissioners of the Treasury to the Secretary of State for India in Council. It runs as follows: 'The Government of India propose that the free coinage of silver shall be restricted so that the rupee shall no longer remain, as at present, simply a piece of silver of a given weight and fineness, but shall in addition to these qualities bear a fixed relative value to the English sovereign. The proposal appears open to those objections to a token currency which have long been recognized by all civilized nations, viz., that instead of being automatic, it must be managed by the Government, and that any such management not only fails to keep a token currency at par, but exposes the Government which undertakes it, to very serious difficulties and temptations. It appears, too, that the Government of India in making the present proposal, lay themselves open to the same criticisms as are made upon Governments which have depreciated their Currencies. In general, the object of such Government has been to diminish the amount they have to pay to their creditors. In the present case, the object of the Indian Government appears to be to increase the amount they have to receive from their tax-payers. My Lords fail to see any real difference in the character of the two transactions. If the present level of exchange be due to the depreciation of silver, the Government scheme, if it succeeds, may relieve the Indian Government and others who desire to remit money to

England, but this relief will be given at the expense of the taxpayer and with the effect of increasing every debt or fixed payment in India, including debts due by the ryots to the money-lenders.' Every one of the things mentioned in the above quotation has come to pass. The Herschell Committee most reluctantly consented to close the mints in 1893 and fixed the rupee at 1s. 4d. or Rs. 15 to the sovereign, although the Government of India desired the fixity at 1s. 6d. to the rupee. It was declared before the Herschell Committee by our Government that if the mints were not closed, India would be bankrupt. India was not bankrupt, although exchange fell to 13d. in 1895. Since then exchange began to rise and by the year 1896-9, 1s. 4d. for the rupee was firmly established with glorious results to the Government and with dire results to the people. We had two severe famines in 1897 and 1900, and yet the Treasury was overflowing. The expenditure on the two famines was estimated by the then Secretary of State at millions of pounds. I will quote an extract from the Indian Spectator, December 15, 1901, 'no doubt we are told that the heavy expenditure was met from the revenue. This expenditure has been computed by the Secretary of State at £15,000,000 during the last two famines, to say nothing of the growing surpluses which are now obtained from year to year.' The losses in crops were computed by the same Secretary of State, Lord George Hamilton, at Rs. 75 crores. This was the result achieved by the artificial rupee, whilst the starving peasantry when it went to the 'Bania' with its saved silver to buy food grains, received only Rs. 60 for every 100 tolas of silver for which it had paid something like Rs. 105. It is not fair to lay the entire blame on the Government of India for the closing of the mints, since about 8,000 educated Indians joined about 8,000 Anglo-Indians in petitioning our Government in 1892 to close the mints and thus save the country from heavy losses entailed by the fall in exchange as regards our remittances to England in payment of home charges. Now the fall in exchange was a gain to the country and not a loss from every point of view, and the Government of India knew it and in its lucid moments acknowledged it. I will quote from a letter from the Indian Government to the Secretary of State in 1886: 'Whilst impressing upon the Secretary of State, the very serious inconveniences suffered by the financial department of the Government and by the Anglo-Indian official community, owing to the fall in the gold price of the rupee, the Government of India freely admitted that so far from this fall having proved injurious to the people of India, the Indian cultivator appeared to have actually

gained.' And this is self-evident. Before the year 1873, when your exchange was 24*d.* to the rupee, your exporter for his one sovereign worth of produce got Rs. 10 ; in 1895, with exchange down to 13*d.* to the rupee, he got about Rs. 19. What harm had he suffered by a heavy fall in exchange? None whatever. He got Rs. 9 more on every sovereign worth of produce sold. It was said that there was no good in getting Rs. 19 for the sovereign as the rupees were depreciated rupees. There was no such thing. The rupee had a much better purchasing power at 13*d.* than the debased rupee at 16*d.* as I will presently show. The late Sir Robert Giffin, K.C.S.I., in his evidence before the Currency Commission in 1898, said that, from an economist's point of view, the rupee was for the purposes of currency a superior coin to a gold sovereign, as its purchasing power was far more steady than that of the gold sovereign. The rupee was divorced from the metal and was screwed up to 1*s.* 4*d.* in 1898-99, and since then its purchasing power fell enormously, since the country was flooded with token coin. I have no desire to give war figures and prices. I will therefore give you the figures up to 1912. I take the following figures from the Commercial Intelligence Department of India.

Year.	Food Grains (Retail) India.	Silver Prices Atkinson's Silver Prices.	Gold Prices		Exchange.
			Sauerbeck's index number	England.	
1873	100	100	100		23 <i>d.</i> to the Re.
1885	100	106	65		18 <i>d.</i> „ „
1894	114	123	57		13 <i>d.</i> „ „
1910	168	151	70		16 <i>d.</i> „ „
1911	161	156	70		16 <i>d.</i> „ „
1912	189	175	77		16 <i>d.</i> „ „

You will thus see that between 1873 and 1894 the silver rupee fluctuated fourteen points, or if you take Atkinson's prices, twenty-three points; but gold prices fluctuated forty-three points. Take the figures now between 1873 and 1912, and you will find the following fluctuations: Food grains, eighty-nine points; silver prices, seventy-five points; gold prices, twenty-three points. In plain language, in 1873 if you had to pay Rs. 100 for a certain quantity of food grains, in 1912 you had to pay Rs. 1*s.* 9*d.* On the other hand, in 1873 if you paid £100 for certain articles in England, the same could be purchased for £77 in 1912.

When you have a token currency, the temptation of manipulations and inflations are very great, and our prices in my

opinion had been inflated long before the war owing to the inflation of currency. The mints were closed in 1893; exchange fell to 13*d.* in 1894 and it was firmly established at 16*d.* in 1899, and our rupee became a token coin. Sir David Barbour, K.C.S.I., K.C.M.G., in his book called, 'The Influence of the Gold supply on Prices and Profits' on page 58, says as follows: 'Token coins, whether of copper, bronze, nickel, or silver, are maintained at their rupee level in relation to gold by limiting their quantity. No more of such coins can be safely issued than are just sufficient to meet the wants of the public at the level of prices existing for the time being.' Our currency in active circulation in 1893 was computed by the Herschell Committee at 130 crores of rupees and about twenty-eight crores in Currency notes. In 1912 our Currency was computed at 180 crores of rupees, sixty crores of notes, and sixty crores in gold in active circulation. The latter figures are taken from the Moral and Material Progress of India published in 1912. Our population in 1893 was 287 millions; in 1912, 315 millions. To-day our population may be estimated at about 327 millions and the Currency in active circulation to-day is computed at 400 crores of silver rupees and about 174 crores of currency notes. The result of all this inflation of token currency has been an artificial rise in prices and wide-spread distress in 1912, long before the war. It is said by the 'Statist' of June 7 last that the Indian Government during the war bought 60 crore ounces of silver or three years world production of that metal, whilst 120 crores of rupees have been added during the war period to the Currency of the country. Instead of gold which was due to us from England and her allies for the purchase of our raw material, we were flooded with silver and token coin. In a note by the Bengal Chamber of Commerce on Currency, published by the Statesman of July 16 last, the Chamber says as follows: 'Thus although the visible cause of the rise in exchange is the rise in the price of silver, the main cause is without doubt the refusal of the gold standard purchasers of India's produce to pay for this produce in gold, thus compelling the Government of India to import silver in order to meet trade requirements.' The mints ought never to have been closed in 1893, and if closed, in common fairness to India, we ought to have had an effective gold currency. It must be remembered that the Herschell Committee reluctantly gave its consent, since the Indian Government threatened bankruptcy, and the Indian people were told and childishly believed that the closing of the mints and the overvaluation of the rupee would cause a saving to India in Home Charges. This is merely a

delusion and the Herschell Committee knew it. If we have £20 millions to remit to England annually as Home Charges, we have to produce £20 millions of goods which will be sold in the neutral markets of the world. To-day our exchange is 2s. to the rupee ; will India save a half-penny in Home Charges? Not a cent. India will have to produce goods which will realize £20 millions in the neutral markets of the world. It is true that the Government of India will save some ten crores of rupees ; instead of finding thirty crores of rupees at 1s. 4d. to the rupee, it will have find only twenty crores at 2s. to the rupee in remitting £20 millions for Home Charges ; but this little saving of ten crores to the Government will bleed the producer, since for his every sovereign worth of produce for which he was receiving Rs. 15 at 1s. 4d., he will get only Rs. 10 now at 2s. Take the imports and exports of merchandise for 1917-18.

Imports.	Exports at 1s. 4d. to the rupee.
Rs. 150 crores—£10 crores.	Rs. 233 crores—£15·55 crores.

The same figures on 2s. to the rupee basis would work out as follows :—

Imports	Exports
Rs. 100 crores.	Rs. 155 crores.

You will thus see that we have gained by a higher exchange fifty crores in imports which are the results of foreign capital, labour, and skill, we have lost seventy-eight crores on exports, the result of Indian capital labour, and skill. And this is not the only loss since all export produce like cotton, wheat, etc., which may be consumed by the country itself will be governed by export prices. Very often people think that the producer will be able to raise his prices. You can only do so if you have got a monopoly of an article like jute, but price of cotton, wheat and other articles of export will have to be guided and controlled by the world prices of these commodities. The Herschell Committee thought of raising more revenue by further taxation to meet the so-called loss in exchange. It acknowledged that import duties would be very popular in India, but Lancashire would not allow it and direct taxation it could not think of, since it would give a handle to the agitator who was already vigorously preaching the doctrine of 'tribute' paid by India to England. We all know how vigorously this annual drain theory was preached by the late Dr. Dadabhoy Naoroji, Sir Dinshaw Wacha, and many others of our public men. Lord Sydenham called it a murderous doctrine. At any rate it was a highly erroneous one, but the Herschell Committee was therefore naturally disinclined to recommend a higher direct taxation. The late Dr. Dadabhoy Naoroji in a

speech delivered to the electors of North Lambeth said as follows, 'India was being selfishly exploited for the sole benefit of Englishmen. It was slowly but surely being drained of its wealth, for no country in the world could withstand a drain of thirty to forty millions sterling, annually, such as India was now subjected to ; its power of production was diminishing and its people were dying of hunger by the million.' The above is taken from the Bombay Chronicle of July 4, 1917. Lord Curzon told us in 1900 that since 1835 India had received 825 crores worth of silver and gold ; and I believe we must have since imported another 825 crores of gold and silver. Instead of an annual drain of thirty to forty million pounds from India to England as mentioned by Dr. Dadabhoy Naoroji, the complaint is that we are draining the gold and silver of the world to that extent annually. And there is no mistake about it. The reason why we are so poor is that we do not know how to make a good use of this wealth annually, and we have never been taught by our rulers how to utilize our surplus wealth in industrial expansion. The Secretary of State only recently found out that he and his country have neglected us for their selfish benefit. Let me quote from a speech in Parliament recently delivered by him. I take the following from his speech reported by the Advocate of India of June 25, 1919. 'Hitherto by a fiscal system, imposed from this country suited to us but not suited to or welcomed by India, we have refrained both on the part of the Government of India from spending the revenues of India in the development of native industries and technical education. We have left untapped and undeveloped the resources of India which ought to be developed at the earliest possible moment. We have heard this afternoon that £24,000,000 of this budget is for railway expansion in India. Practically all the railway plant ought to be and could be produced in India itself.' What an awakening, although late in the day ! We starved and we died by the millions owing to free trade of which the late Dr. Dadabhoy Naoroji and Sir Dinshaw Wacha have been the misguided exponents. The latter, a 'staunch' free-trader, supported an export duty of fifteen per cent recently imposed on hides and skins for the benefit of the tanning industry. Is there any country in the world which imposes a export duty on its raw material to protect its home industry ? You can do so with impunity if you have a monopoly of that article like jute, not otherwise. Sir Dinshaw Wacha in a paper read before the Royal Society of Arts in 1918 under the presidency of the Secretary of State, said that the prosperity of the cotton

industry in India dates from 1882 when all import duties were abolished on Lancashire goods. Did you ever hear of such an absurdity? Removal of these duties was denounced by the *London Times* in its columns and Gladstone in the House called it a crime against helpless India. Sir Dinshaw also advocated an export duty on cotton to Japan which was most adversely criticized by Sir Charles Armstrong and Mr. Basu, who were present and who took part in the discussion. When such men honestly but ignorantly preach the doctrine of the drain theory, no wonder the Indians believed it and felt resentment at their imaginary wrongs. Prof. Jevons of Allahabad wrote a letter to the Pioneer during the recent Currency controversy in which he said that if India had gone in for a gold standard and a gold currency in 1873, all our subsequent trouble would have disappeared. We would have saved in home charges by millions and in every other way, this would have been a happy land. I have before me a journal of the Society of Arts, March 22, 1903. A paper on Indian Currency was read by Mr. J. Barr Robertson, Sir D. A. Sassoon, Bart., M. P., presiding. Mr. Robertson was a very enthusiastic admirer of the closing of the mints, but this is what he said, 'It is in the highest degree necessary to emphasise the fact, that up to 1890, India's financial troubles were due almost entirely to gold. The silver standard gave India in the twenty years from 1873 to 1892 a remarkable degree of prosperity, whereas if India had been on the gold standard with exchange at 1s. 11d. and prices in 1892 on a gold basis of sixty-eight instead of on a silver basis of ninety-six, it is needless to say that there would have been wide-spread adversity all over India.' As I have said before we discharged our gold debt by the export and sale of produce, and if we had been put on a gold standard as Prof. Jevons recommended, we would have had to pay more in produce which on a gold basis fell from 100 in 1873 to 68 in 1892. That is the meaning of Mr. Robertson. Our present difficulties were predicted by Sir James Begg, a member of the Chamberlain Currency Committee of 1912. He was for many years the Secretary and Treasurer of the Bank of Bombay. In his minute of dissent he said, 'At least there is not such general confidence in the rupee as would in my opinion alone warrant further large extensions of the token currency. For a country which takes gold in great quantities, an extensive token currency is not suitable. The statistics show that great progress has been made in attracting the cash reserves of the people into useful and profitable channels such as investments and deposits with banks. But they also show this latter reversion to hoarding on an

extended scale which is thus a retrograde movement, indicating a greater and not *unnatural desire* for solid security than for profitable returns or investments in a currency medium which does not provide the kind of security now clearly preferred. It seems to me that it is not to the interest of India to have its rapidly accumulating wealth diverted into idle hoards by this token currency policy. But as future additions to the currency become necessary by reason of favourable trade balance, the additions should take the form of gold which will be imported in settlement of the balance of trade.' Instead of giving us gold, our Government bought sixty crore ounces of silver during the war or three years world production of the metal and added 120 crores of token rupees to the active circulation of the currency, and yet the Government is surprised at the inflation of prices and the high price of silver. Whatever may be the effect of a 2s. rupee on the destinies of the producer, the Government is bound to roll in wealth. Scarcity and famines will not prevent the overflowing of the Treasury. When exchange was at 13*d.* in 1895, we had a surplus. When it rose to 1*s.* 4*d.* in 1889, the year of the greatest famine of the century, the Government Treasury was bursting with surpluses, since there was a rise of 3*d.* in the rupee, or 18½ per cent rise in indirect taxation. On the 16th September, 1901, Reuter made us familiar with the utterances of Lord George Hamilton, our then Secretary of State, who spoke in the House as follows: 'I doubt since India was first under the jurisdiction of the Crown, if any Secretary of State had been able to make such a satisfactory statement. The surpluses have been large, continuous and progressive notwithstanding the drought, and India as a whole has been prosperous. This is a conclusive evidence that the economic movement of India was on the up-grade. The agency which next to railways and irrigation had helped in fighting the famine was the currency policy. Lord Curzon is doing everything tending to the internal prosperity of India, and he uses his rare power of sympathetic eloquence to bring home to the native communities the beneficence and unselfishness of British intentions.' In 1919 during the Budget Debate in the House of Commons our present Secretary of State, the Rt. Hon'ble Mr. Montague deplored the poverty of the people and their want of stamina owing to our want of reserve which made us an easy prey to epidemic diseases, such as plague, malaria, and influenza, 6 million people having died during the course of the year owing to the ravages of the latter disease. Once more a high exchange will give the Government an overflowing treasury in spite of the recent famine and wars.

I trust Mr. Montague will be better informed than Lord George Hamilton was in 1901 about the causes of an overflowing Treasury. Now that silver is high, and exchange being 2s. to the rupee if not higher, what is to be done? It is sometimes asked that if the mints had remained open, exchange would have been 2s. to the rupee as it is to-day, and the producer and the tax-payer would have suffered just as much. No doubt, that is true, but then they would have had no grounds to complain. They would have been on a natural silver basis; they would have derived the full benefit of a fall in exchange. They would have received Rs. 20 for their one sovereign worth of produce, assuming the exchange to have fallen to 1s. to the rupee. Imports would have been handicapped, exports would have been stimulated more than ever, and industries would have multiplied far more rapidly than they did during the last twenty years. A low exchange is as good as heavy import duties which all countries are free to levy for the development of their industries except India. Having benefited by a low exchange, we would have had no ground to grumble, if under the operations of natural laws, silver rose as it has risen now and handicapped our export trade and penalized the tax-payer. It should be remembered that from an economic point of view, the rupee was a superior coin, since its purchasing power remained fairly steady between 1873 and 1895 although exchange fell from 23*d.* to the rupee in 1873 to 13*d.* in 1895. What is the remedy now? To my mind, nothing else but an open mint. Fluctuations of exchange are an inconvenience to the trader but nothing more. We have traded with China all these years with a fluctuating exchange, why should we not do the same with Europe and wait patiently till silver falls again? It may be years before it does, but still with an open mint we have a chance of doing better. If however, it is resolved to link up our currency with that of England on the basis of Rs. 10 to the sovereign, which would no doubt be injurious to our producers and manufacturers, the least England could do is to give India complete fiscal freedom, so that we can develop our industries by levying import duties at a faster rate than we are doing to-day. India is rich in raw material, why should we not use it as much as possible? But to do that in double quick time, fiscal freedom is absolutely essential. England has conferred on India many blessings and advantages she never knew before. We have, on the other hand, given her a free market in India which has enriched her beyond measure. Will she now forego the advantages of an open door in India? Will she give us fiscal freedom to save us

from starvation in the midst of our opulence which is testified to by our heavy annual imports of treasure? Will, above all, Lancashire allow it? Sir William Meyer, our late Finance Minister, in a recent speech delivered at the Phillipines, said that India wanted protection, but English merchants and manufacturers do not like the idea. Whilst America consumes 95 per cent of the output of her spindles and looms, Lancashire has to export 80 per cent of her products. She is immensely rich, and as a spinner and weaver, she is extremely skilful; but with a moderate tariff in India, say, to the extent of 15 per cent on her goods, she would go under. We are in a position to replace her to-day by 80 per cent. Lancashire lives on and by India. Japan which has no cotton either long or short has ousted her completely through tariffs. The Secretary of State has recently in more than one speech, expressed a desire for granting fiscal freedom to us, and if that is done, the evil effects of a 2s. rupee and a ten-rupee sovereign could be largely mitigated.

Discussion

PROFESSOR V. G. KALE advocated the adoption for India of a true gold standard, with a gold mint and gold currency. Failing this, he considered bimetallism the best system; but he was opposed to the gold exchange standard system.

MR. G. SATYANARAYANAMURTI held, in opposition to Mr. B. F. Madon, that the rupee had at the present time ceased to be a token coin. He considered that the gold exchange standard could only justified as a temporary makeshift suitable for the period of transition from a silver to a gold currency. He recommended, in the present currency crisis, that (1) gold should be imported freely (2) £1 notes should be used and popularized, and facilities provided for their conversion into gold, (3) the rupee should be legal tender only to a limited amount, (4) the portion of the Gold Standard Reserve not needed for maintaining exchange should be located in India, and lent to Indian producers, (5) the sterling debt in India should be converted into rupee debt, advantage being thus taken of the high rate of exchange, and (6) exchange should be stabilized.

MR. T. G. ARAVAMUTHAM agreed with Mr. Madon that it was necessary for India to endeavour to do without more silver, but he disagreed with the Mr. Madon's methods of achieving this result. He preferred that the habit of paying by cheques should be cultivated, rather than more paper money issued; and instead of diminishing the quantity of silver in the rupee he advocated the addition of more alloy to the sovereign, while still keeping the gold content unaltered. He thought this would prevent gold coins from finding their way into the goldsmiths' crucible.

DR. HAROLD MANN pointed out that it was necessary to distinguish between the internal and external aspects of the currency question. The present difficulty sprang from the fact that India has been having a monthly excess of some eight millions sterling of exports over imports of commodities. This excess of exports must be paid for somehow, either by imports of silver, or of gold, or of securities. If it could possibly be arranged that the payment was made by imports of securities the currency

difficulty would be obviated; but unfortunately India insisted on having gold or silver.

MR. G. V. SUNDARA REDDI and MR. T. K. DORAISWAMI AIYAR deprecated a further increase in issues of paper money, and all approaches towards a condition of inconvertibility.

MR. VENKATACHARIYA advocated the issue of distinctive Indian gold coins with rather a heavy seignorage to prevent their being melted down; later on the legal tender of the silver rupee should be limited and the seignorage on the gold coins removed.

DR. GILBERT SLATER said that in the whole of this discussion it must be remembered that Indian currency difficulties had not arisen from any defect or weakness in Indian money, but entirely from the fact that many of the belligerent countries had issued enormous quantities of inconvertible paper money which had fallen to varying but very heavy discounts. This applied even, to some extent, to British currency. India must maintain a sound currency and help to restore a sound currency elsewhere. It was a mistake to say that the rupee was now a token coin. It never was *merely* a token coin. When the mints were closed and the rupee was stabilised at 1s. 4d., it was given a value as a token coin in excess of its bullion value. But with the outbreak of war its convertibility into gold ceased; it became convertible only into British Treasury notes, a very different matter. Since then, by the rise of the value of silver, its bullion value had become the determinant of its exchange value. Ultimately the rupee must be put on a gold basis; but he would deprecate its silver basis being interfered with until after steps were taken to make rupee paper convertible into gold.

PROFESSOR HAMILTON, in reply, deprecated the importation into the discussion of any but purely economic considerations. They must not, for example, be moved by any mistaken notions to the effect that the national prestige was concerned, or that the gold exchange standard bore with it any stigma of inferiority.

MR. MADON, in summing up the discussion, remarked that Professor Kale had said that while he could not think of resorting to inconvertibility as a permanent measure he was prepared to accept it as a temporary measure for the solution of our present difficulties. Mr. Madon said he was glad to hear this and was willing that we should resort to inconvertibility for two or three years only and at the end of that period reconsider the whole position. Professor Kale had further insisted on our having the true gold standard and not the Gold Exchange Standard, but the only real difference between the two was that in

one the gold was brought together into a central reserve, while in the other it was allowed to be dispersed and was thus not readily available when most wanted. One of the speakers had alluded to the location of the Gold Standard Reserve. There seemed to be an idea that if this reserve was in India it would help Indian Trade and Industry, but if the principle of the Gold-Exchange Standard was properly understood, it would be at once seen that we could not touch it at all even if it was in India. If Indian sentiment wanted this reserve to be in India Mr. Madon saw no objection except that the country would lose the profits that we now made by preventing unnecessary gold movements to and fro. Another speaker had spoken of our resorting to the printing press here. This was altogether a misconception. The term could only be applied to note issues without any assets to back them. In our case we had sterling assets in England for every note issued here. Then again one of the gentleman had spoken of the increase of price owing to large issues of paper money. This again was a misconception. The notes issued here represented gold credits that could not be brought over to-day owing to difficulties in procuring gold and silver. If gold and silver could have been imported we would have had a larger circulation of coins in place of the notes. Mr. Madon said he could not reply to remarks of Dr. Slater as the time was up, but he would say that he did not agree with them.

Third Day

I. Co-operative Purchase and Sale

II. The Sphere of Central Banks

The chair was taken by PROF. C. J. HAMILTON.

PAPERS

Indent Co-operative Trade by Primary Societies

BY F. R. HEMINGWAY, I.C.S.,

REGISTRAR OF CO-OPERATIVE SOCIETIES FOR MADRAS¹

The intrinsic difficulties of keeping a regular co-operative retail shop have prevented much progress on these lines in villages. An alternative has been tried in some provinces on the lines sometimes followed in the early stages of distributive societies in Ireland and Germany, namely, by joint wholesale purchases by village societies of the requirements of their members, each member purchasing his share outright and removing it from the society's custody at once on its receipt by the society. In such an operation, the society does not attempt to store the articles nor to sell retail, and does not even accept the risk of loss, acting merely as the agent for its members. It, moreover, demands payment in cash or else grants a loan to the member for the purchase and secures the loan in the same way as any other loan. For some years past, improved seed has been purchased on a system of this kind by the village credit societies in the Central Provinces, and attempts have been made for some time to popularise co-operative purchase on these lines by Co-operative Credit Societies in Madras.

The most attractive points about this kind of trade are its complete safety as far as the society is concerned, and the enormous capacity for its expansion. Be it noted that trade of this kind possesses the essential advantages of co-operative purchase—namely, that by joint purchase the member secures good quality, cheap prices, and full measure. Yet the operation is so simple that it can be done with safety by any intelligent village panchayat. There is no risk of wastage or theft or fall of price or of having things left on the hands of the society unsold. Nor is there any elaborate account-keeping. In fact, the worst

¹ This paper has been published in the *Bombay Co-operative Quarterly*, December, 1919. It was read by Dr. Gilbert Slater in Mr. Hemingway's unavoidable absence.

pit-falls of a co-operative shop are eliminated. Indeed, when the distribution has been made, the society has completed the transaction as far as the trade is concerned, and is merely left with the duty of collecting at the proper time a certain number of short term loans given for these purchases—an ordinary credit operation with which it is perfectly familiar. The disadvantage of the system is that it is not so convenient to a member to have to estimate his requirements for several weeks or months ahead, to pay for them in advance, and to store them in his home; and that a co-operative shop is actually a much greater convenience. The answer seems to be that half a loaf is better than no bread.

Secondly, it is obvious that if you can use existing credit societies for this trade, you are at once provided with a vast clientele, scattered all over the province, consisting of men trained already in joint action and mutual service, through whom the trade can be rapidly expanded. Indeed, it is likely that the expansion of co-operative trade in Indian villages will be many times more rapid if the ordinary credit societies are utilized for the purpose than if reliance is exclusively placed on other channels.

The method followed in Madras in doing this trade has been based on a system of indents. When a co-operative purchase of any commodity is contemplated in a village, it is the business of the panchayat to obtain from each member an indent as to how much he wants and an understanding or an undertaking that he will take over from the society on its arrival the quantity indented for by him and pay for it, either in cash or by taking a loan from the society for the purpose. Payment or the issue of loans can, of course, be concluded in advance, if thought necessary. The amount is then ordered wholesale; and payment is made by arrangement with the central bank; and the supply when received is distributed immediately on arrival. These operations are often facilitated by several societies combining their indents so secured for a larger joint purchase. This is sometimes done by an informal arrangement with the local supervising union to which the societies belong. More often, the societies in a given area combine permanently in a trading union, in which they take shares, and to which they look to do this business. These trading unions have a substantial paid-up share capital contributed by the societies alone, or by a joint membership of societies and individuals. Sometimes, they are constituted out of ordinary urban co-operative stores, which are prepared to admit credit societies as members and to do an agency business for them. It is the duty of these trading unions

to get periodical indents from their affiliated societies and buy their requirements in a large joint purchase. They can afford an establishment and are naturally able to command the services of men more experienced in business than those available in a village panchayat, and the work is actually more efficiently done by such unions than by the unaided credit society.

The co-operative year 1918-19 saw a considerable development of this kind of business in the Madras Presidency. It was, especially stimulated by the high prices of domestic requirements, in spite of the difficulties in transport and supply. Some 200 village societies did a trade of about three lakhs of rupees, and the estimated profit derived by the members was nearly Rs. 60,000 or 20 per cent. The chief articles dealt in were rice, salt, seed, manure, and kerosene oil. The trade continues and is rapidly increasing. The possibilities of its expansion may be roughly estimated by the following calculation. In the village societies in the Madras Presidency, there are over 1,70,000 members, and it is not an extravagant estimate to suppose that, on the average, each member purchases, from outside the village, articles capable of being purchased co-operatively worth Rs. 200 a year. If each member obtained these requirements by co-operative purchase, and if the business was done so as to secure a saving of no more than 10 per cent (not an extravagant figure) the sum taken from the pockets of unnecessary middlemen and placed into the pockets of the village co-operator would amount to no less than Rs. 34 lakhs per annum. There would seem to be no great inherent difficulty in securing a substantial measure of this result within a not very distant future. And if we imagine all the credit societies grouped under a network of trading unions, and the latter grouped under one or more wholesale trading societies, a rapidly increasing efficiency might well be expected.

The Triplicane Urban Co-operative Society

BY T. K. HANUMANTA RAU, LECTURER IN CHEMISTRY
GOVERNMENT COLLEGE, KUMBakonam

Mr. President, Members of the Indian Economic Association,
and Gentlemen,

By the kindness of Dr. Gilbert Slater I appear in this place to lay before you what I consider to be the salient features of the '*Purchase and Sale*' side of Co-operation from the point of view of the '*Triplicane Stores*' with which I had the privilege of being associated in the early days of its struggle for a place in the Co-operative movement, a place which it was no easy matter to secure; because the Act X of 1904 had no reference to Distributing Co-operative Societies which aimed at the amelioration of the condition of the '*workers in urban*' areas by inculcating principles of *self-help, moral help, honesty and equity* in business, in the same manner as the Co-operative Credit Societies focussed their beneficent influences on the *rural* agricultural workers. The Registrar of Co-operative Societies, could not at first find his way to register our '*store*' which always insisted on '*Cash down*' in its business transactions, under an Act meant for the creation and development of Co-operative *Credit* Societies. To some of us who had received our inspiration from the British form of Co-operation, it was a great surprise to be told that a Co-operative store could not be registered under a Co-operative Act. It may be mentioned here that among the preliminaries towards the formation of the Triplicane Store were two lectures under the auspices of the Triplicane Literary Society, one on '*History of Rochdale Pioneers*' by myself and another on '*some aspects of Co-operation*' by my friend Mr. S. Venkataramanier. Thus our Store was to be the now so well-known—'*Rochdale type*'. We had learnt that many prosperous British Co-operative Distributing Societies owed their origin to the reading of the story of '*Rochdale Pioneers*' by some enthusiastic co-operator to an audience of his fellowworkers. Our Triplicane Store was also the outcome of the interest created in us by the soul-stirring narrative of the poor flannel weavers of Rochdale by Mr. G. J. Holyoake.

2. *Commencement of the Store and its early struggles.*

We commenced business, *as an experiment* on April 4, 1904, with a membership of fourteen and share capital of Rs. 310 with the hope created in us by the Pioneers' Story that '*Like a good chronometer co-operation is unaffected by change of climate and goes well in every land*'. The first few months of our activity were discouraging in the extreme owing to a combination of causes among which may be mentioned our smallness of capital, want of experience in purchasing, ignorance of the members and their indifference to their own best interests; and the only recognition that the management received at the hands of the generality of the members was in the form of pungent adverse criticism on the bad quality and high prices of our commodities. In spite of these difficulties 'we knew that co-operation had come to stay with us; we saw before our vision a slow but steady progress, and felt that the movement had gone on far enough to be no longer the concern of an interested few, but the property of the public.'

3. *Registration of the Society and slow but steady progress.*

We then made bold to approach the Registrar of Co-operative Societies with a view to obtain Registration under the Act of 1904; and it was easy now to convince the sympathetic Registrar of the genuineness of our co-operative spirit; and our society was registered on September 20, 1905, under the special authority of Government according to section 29 of the above Act, and with the altered designation of 'the Triplicane Urban Co-operative Society' which however did not succeed in replacing the old name of 'the Triplicane Store' in daily use. The one condition that was tacked on to our Registration was that we should add a '*credit branch*' to the 'store'. The slow but steady progress in the business of our society is seen from the statement at the end of this paper.

4. *This measure of success is due to our closely following the Rochdale model.*

This measure of success, small though it may be, compared with the normal progress made by a British Co-operative Store, was due mainly to our closely following the Rochdale model in every detail of its work. Some of the principal features are:—

- (a) Sales for cash only: Purchases also for ready money.
- (b) Sale not at the cost price, but at the customary retail price, thus bringing a '*profit*'.
- (c) The distribution of a large share of the profits among members, not according to the capital held by each member, for

which a small fixed interest is paid, but according to the purchases made by each member.

(d) The use of a certain portion of the profits for social and educational purposes.

These are the four pillars on which our structure is supported. The fall of any one of these will weaken our structure and finally reduce it to a 'mere shop.'

As a means of developing the social and educational side of our co-operative work, reading rooms were started, co-operative tracts, journals and books were purchased for use by the members and last but not least, an annual celebration of the *Co-operators' Day* was instituted from 1908, when a social gathering is held of all the members, and papers read by people who are interested in the spread of the movement, on matters of general interest to co-operators. A perusal of the several annual 'proceedings of the co-operators' day' which are all published, will give a fair idea of the humble efforts of the Triplicane co-operators to do propagandist and educational work. To these meetings, mofussil co-operators were invited, who not only readily responded to the invitation, but actually contributed to the success of those proceedings by reading valuable papers at the meetings.

5. *Spread of Distributive Co-operation outside Triplicane.*

The institution of the Co-operators' Day celebrations gave the society a greater publicity through newspapers than before, and public attention was focussed on the affairs of the society and the manner in which it was carrying on in its own humble way the great aims of the co-operative movement. Many visitors from the mofussil came in search of the society thirsting to know the mysterious causes of what it had so far achieved. Some of these 'tourists' after going round the 'store' on inspection have returned home disappointed at finding no visible proof of anything to distinguish it from a common bazaar; and yet others with a desire to make a more searching inspection, have called for copies of By-Laws, half-yearly Reports, the various printed forms, those inevitable accessories to every kind of business. Could one find in these anything which would reveal to an enquiring visitor, *the aims, the causes and conditions of success of the society*, and the extent to which it had achieved them? Many among such visitors have returned home and started some distributing co-operative societies and got themselves registered under the co-operative Act. But very few of them have a pleasant tale to tell. The Registrar of co-operative societies referring to such societies has in one of the recent reports observed:— '*The history of distributive co-operation in this Presidency, with the*

single brilliant exception of the Triplicane Store, has been such that its results far from encouraging, tend actually to discourage and prevent the rapid spread of distributive and productive work . . . whatever may be the cause or causes of failure and howsoever one may estimate the ill success of such good societies as those of Coimbatore and Madura, it must be admitted that the "stores" are the weak point of co-operation in this Presidency. The leading article of the *Madras Mail* of February 19, 1912, concludes thus :—

'While the management of the societies for financing agriculturists has been successful on the whole, in the case of productive and distributive societies, it has almost been a failure. It is curious why in one case unpaid and voluntary management should produce such good results and in another it should fail so utterly.'

Thus officials and non-officials have proclaimed that distributive and productive societies are failures. My observation of the few societies that I have visited goes to show that the cause of the ill-success of many distributive societies is in the want of a definite social and moral aim or ideal; they may be said to be mere shops aiming only at 'money profit' made by 'buying cheap and selling dear.' They say that their object is to sell to their members pure articles at a cheap rate. The Pioneers of co-operation never aimed at that; their aim in shop-keeping was to create capital for those who had none; why should they create capital? To carry on production. Why should they carry on production? To create employment for the unemployed, i.e., the aim of distributive co-operation is to bring about a democratic system of Industry with the capital created by the thrift taught by the store. Thus self-trading was a stepping stone to self-employment to each worker, i.e., independence and competence, so deplorably lacking to the average worker in the present competitive capitalistic regime.

6. *Distributive Co-operation leads to Co-operative Production.*

To any one familiar with the story of the Rochdale Pioneers it must be amusing to read that a class of persons who in 1844 had had to scrape and borrow in order to raise a few pounds, by 1875 were seriously troubled to know how to employ their accumulations of capital. The dividend and the practice by which members allowed it to remain in the society as in a Savings Bank taught the co-operators of Great Britain the value of thrift and gave them the means of building up the large co-operative Industrial system as it exists to-day.

In Triplicane, on a small scale, as far as a solitary society in its present environment can accomplish it, it has created its own capital, *the share capital, the common good fund, the Reserve Fund*, all of which put together is more than enough for its trade purposes, and hence its spare capital has been lent out to several co-operative Central Banks for the benefit of rural societies who in turn lend to the individual members of the rural society for productive purposes. Here we see the faint beginnings between Urban Distributive co-operation and Rural or Agricultural co-operation. May we not hope that at no distant date organizations will arise in our midst of a co-operative character which will effect that relation between the *rural producer* and the *urban consumer* which will ultimately put an end to that of middlemen who stand between us and those who produce our necessities each levying his own toll at his sweet will and pleasure. Such institutions are the '*wholesale societies*' which ought to be formed for large areas to absorb the surplus capital of big stores, and undertake the work of wholesale purchase and then production first on a small scale, and finally on a large scale. But before a wholesale society can be thought of there must be a large number of real co-operative distributive societies with the lofty aims of the Pioneers, doing trade, creating capital, federating into wholesales and thus paving the way for the new co-operative Industrial system to supplant the old capitalistic and competitive system of Industry which modern economics and ethics have condemned as outrageous to a large section of humanity.

7. *What do we want to democratise Industry?*

The Government has enacted a new Act (Act II of 1912) enabling Distributive societies to be formed, and also to form combinations among themselves for accomplishing what they cannot accomplish singly.

We have in this Presidency as Registrar, a gentleman whose zeal for Distributive co-operation has made itself manifest in his articles to the Press, in his lectures to the public and his circulars to the several societies whose keeping he has in his hands. There is a Provincial co-operative union, and a Bulletin of co-operation at its service. Cannot all these forces combine to bring about in our country the growth and development of a large number of big distributive societies taking under their wings the smaller rural societies also, which will lead to that desirable goal of Commerce and Industry on a Co-operative or Democratic basis?

8. *The part to be played by the Triplicane Store.*

The Triplicane Store, as the Pioneer Store in South India, is in a position to lead in bringing about the spread of co-operation all over the Presidency. It can pioneer the wholesale movement, it can bring about conferences of similar societies to secure a unity of aim and purpose. The times are ripe for a large change, men's minds are prepared to accept large changes in the existing state of affairs.

9. *The Hour is come but not the man. The Leader.*

We may have any number of guide books on co-operation, we may have free and unlimited lectures, pamphlets, bulletins, etc., describing the advantages of co-operation and yet if one thing is lacking, we can do nothing. That one thing is Leadership. Knowledge, Faith and Leadership, this is the trinity of essentials in co-operation.'

May I not urge, in conclusion, every one of my hearers to set out to make himself a leader in rebuilding his neighbourhood, finding for himself the inner joy and happiness that comes only through service to one's fellows and some ideal?

'Oh it is great, and there is no other greatness, to make some nook of God's creation more fruitful, better, more worthy of God'. . . . To the man who has an ideal of a richer and fuller life for his community, and who unselfishly sets to work to bring about this ideal, the glorious reward is usually seen with the material eye long before age has dimmed his vision. But to the triumphant spirit of every man who seeks to hasten the '*Good day coming*', it is enough if only with the eye of faith 'he shall see the travail of his soul and shall be satisfied' and dying,

Join the choir invisible

Of those immortal dead who live again

In minds made better by their presence . . .

Whose music is the gladness of the world.'

To such tasks and to such spiritual adventures are the leaders of young India called. In fact the bye products of co-operation, comradeship, fellowship, these are much more important than even the striking material rewards. For as a matter of fact, important as are the dividends in cash, the dividends in brotherhood are greater.

The True Sphere of Central Banks

BY PROF. J. C. COYAJEE, PRESIDENCY COLLEGE, CALCUTTA

A controversy of absorbing interest to Indian co-operators has been going on for some time on the topic of the true sphere of Central Banks. Mr. Ewbank opened the debate by drawing attention to the fact that 'during the last few years there has been a distinct tendency in several Indian provinces to make the District Central Bank the pivot of co-operative administration.' Mr. Darling, writing in the pages of the Bombay Co-operative Quarterly a little later, enunciated the problem thus:—'At the outset, primary societies necessarily depended on the Central Bank for money but not for control; that remained in official hands. But now that official control is being slowly relaxed, it is commonly assumed that the Central Bank will take its place.' Meanwhile that great co-operative classic—Mr. Wolff—had laid down the dictum that 'the Central Bank is, when all has been put shipshape, to serve, not be tutor to, the local banks.' Later still he has argued in the Bengal Co-operative Journal that 'even Central Banks should stick to their credit business only.' On the other hand, Mr. Kelkar has stepped forward to champion the new departure and has obliged the public by putting forward all that can be said in its favour. His is a double-barrelled argument: on the one hand, he urges, that this sphere of Central Banks should be extended beyond finance, because the individual shareholder of those banks is giving place to primary societies; on the other hand, he argues that control is being exercised by the directors of the Central Banks only as agents of the Federation. The controversy has very properly drawn a great deal of attention because, although it relates in the first place only to the functions of Central Banks, yet the question of the organization of our co-operative system in its entirety lies in the background; and still further back looms the problem of the agency which is to work our whole co-operative organization.

One of the main points under discussion is whether in the provinces concerned 'the Central Bank has become the pivot of the co-operative system.' In order to decide this matter we must compare the system prevailing in those provinces with the

co-operative system observed elsewhere and the relative position occupied by the Central Banks in each. The comparison undoubtedly shows that in the provinces in question the Central Bank has been given an exceptionally dominant position. To take example, in the Imperial Federation in Germany, the membership is open to all unions of agricultural societies and their Central organizations. The general Committee of that Federation is composed of the Director-General, the managers of the Unions and of six representatives of the co-operative banks. Similarly in the case of the General Federation of Germany the Committee is composed of certain officials, managers of Unions and of the Directors of the Central Agricultural Bank. What should be particularly noted here is that in the case of both great German Federations the *members representing the Unions and the Banks meet on an equal footing in the Council of the Federation*. Now this is far from being the case in the co-operative organization of the Central Provinces; for there the Federation Congress consists of one delegate from each Central Bank and the unions are not directly represented in the Congress at all. This shows that in the Central Provinces the Banks do occupy a predominantly important position with reference to the unions.

Carrying our comparison further, let us discuss the functions of the Central Banks in the Central Provinces and in Germany. In Germany supervision, inspection, advice, and propaganda are functions of the union. The sole function of the Central Bank is that it carries on banking and credit business, more particularly as a means of equalizing temporary shortness or oversupply of cash in the primary societies. The only other function ever possessed by the Central Banks in Germany was in the matter of joint sale and purchase which has been transferred latterly to district organisations. On the other hand, as regards the Central Provinces, Mr. Crosthwaite informs us that 'a Co-operative Central Bank is not merely a link in the financial chain which connects the primary society with the open money market but it is an institution intended to spread and foster co-operative knowledge and practice. At the outset of its career, as we have already noted, co-operative control is not a feature of the working of a Central Bank.' But after primary societies have become shareholders in them 'the Central Banks must look upon inspection, supervision and guidance of the primary societies under them as duties which are indispensable to efficiency and safety.' These dicta are to be found at pages 307 and 312 of Mr. Crosthwaite's work on 'Co-operative Studies' and show

that in the new system projected in India far more functions are being assigned to Central Banks than has been the practice on the Continent.

We shall arrive at the same result if we contrast the system proposed with that prevailing elsewhere in India. In Bombay the functions of training and supervision are entrusted to guaranteeing unions which have the power to enforce their orders by the stoppage of credit to refractory societies. In Madras, as in the Central Provinces, primary societies are being admitted as shareholders of Central Banks and society delegates are being elected to the Boards of Directors. Yet it does not seem to follow as Mr. Kelkar observes that 'it becomes impossible and undesirable to dissociate the members of the Central Bank from controlling and regulating the primary societies.' Far from insisting on such association, the Central Banks in Madras are according to the last co-operative report 'consenting to relinquish the exercise of their control over their affiliated societies and to leave the work of supervision very largely to local unions.' The report adds that these local unions are doing very good work as a means of supervision. The comparisons instituted above leave no doubt that in some provinces of India an exceptionally dominant position has been secured for Central Banks which goes far to make them the pivots of the local co-operative systems.

The more one looks into the new system the more completely does one find that all power is in Central Banks. Apart from every individual member being requested to take shares in Central Banks, and every society to deposit their reserve funds in Central Banks, one finds that every society belonging to a Guaranteeing Union affiliated to a Central Bank is prohibited from accepting any deposits at all from non-members and is compelled to borrow all its capital from the Central Bank. No system can possibly be devised which would be so efficacious in strengthening the powers of the Central Bank and in depriving primary societies of all initiative.

There has been a good deal of discussion on the question of fact whether in the provinces in question the Central Banks do exercise control over the primary societies. But there is not much room for doubt as regards that matter if we consult the most authoritative exposition of the new system—Mr. Crossthaite's admirable 'Co-operative Studies.' We have already quoted from it the proposition that 'Central Banks must look upon inspection, supervision and guidance of the primary societies under them as duties which are indispensable to

efficiency and safety.' Further at page 308 we read that 'the area assigned to the Bank should not be too large; for it would tend towards looseness of supervision and of control.' In these places the existence of controlling powers in the Central Banks is asserted in the most explicit terms.

On the other hand, as regards this point, Mr. Kelkar's reasoning, though able, is open to a suspicion of inconsistency. He observes in one place that when Central Banks are owned by primary societies 'it becomes impossible and undesirable to dissociate members of the Central Bank from controlling and regulating the primary societies, for those members are merely representatives of the societies and *their control is not an outside control.*' This proposition implies that since the Central Banks are owned by the primary societies themselves it is quite legitimate to add to the financial function of the Central Banks the work of controlling the societies. But in another place Mr. Kelkar tells us that 'the local control of this (Auditing) Staff is entrusted frequently, though not necessarily to the Honorary Secretary of the Central Bank, and this appears to have given rise to *the idea that the whole control of primary societies is centred in the Bank.* But it should be remembered that the control of this staff is entrusted by the Governor of the Federation to the Honorary Secretary of the Bank as the agent and local representative of the Federation. It is not essential that it should be so entrusted.' It should be noted that in the first dictum the function of control exercised by the Bank is justified by the circumstance that the Bank is owned by the societies themselves; in the second dictum, the control is said to be not in the Bank at all, but in the Governor of the Federation who might delegate it to any one whom he considered suitable for the work. In any case, it is admitted that habitually the control is entrusted to and exercised by the Honorary Secretary of the Central Bank.

We might now pass to the allied question, whether the Central Banks *should* exercise such control over the primary societies. There are plentiful reasons for the view that control should not be a function of these Banks except under certain temporary circumstances which we shall notice later. In the first place, the control of the Central Banks is not the control of the agriculturists, but that of the expert officials or managers of the banks who must be financiers first and co-operators afterwards. A Central Bank—however constituted—is a large financial machine which is worked and managed not by the numerous representatives of the constituent societies but by a few financial experts. Again the

'individual' shareholders and the bank officers are townsmen with far more education and skill than their confrères from the country. In dealing with such members of the Central Bank the rural representative is at a great disadvantage since there is a great gulf fixed between the representatives of the town and the country. On this point it might be permissible to quote a couple of sentences from the excellent article of Mr. Darling. He observes that with the acquisition of shares in Central Banks, 'the ryot's voice hitherto dumb, begins at last to be heard, but not often at a meeting of the Central Bank, for there the town prevails and the town's ways, however good, are not the ryots' ways; nor, in the town, can he speak his mind freely about the official who is mostly a product of the town'. He observes further that it is not possible for a Central Bank to exercise proper control over primary societies. 'Its area, embracing a whole Tahsil or District, is too wide and its clients too scattered for close mutual knowledge, while its control is too urban for that feeling of proprietorship which societies have in their union'. Mr. Darling is not alone in holding this opinion and there are a great many co-operators who doubt the possibility of a sufficiently intimate contact between the directorate of a Central Bank and the rural population, as also the likelihood of the representatives of the constituent societies directing and watching the administration of the Central Bank. On these grounds proposals have been brought forward to restrict the area of operation of the Central Banks and to introduce Taluka Banks of which the area of operation should be much smaller than that of the District Central Banks.

But, further, one might ask what is to be gained by combining different functions requiring very different capacities in a single organ? The proper working of a bank requires great financial skill, capacity for handling large scale operations and expert knowledge of the money market. The work of control requires very different qualifications—among others, an accurate knowledge of the affairs, conditions and susceptibilities of the agricultural people in a limited area. Any enforced union of such diverse functions in a single authority would lead to inefficiency.

Mr. Kelkar has argued that in his own province it is the Federation which exercises the control by delegating its powers to the Honorary Secretary of the Central Bank. He says, indeed later that power might as well be delegated to the chairman of unions and will be so delegated if abuses appear as the result of the present procedure. But why should the Federation exercise

such control at all through an official who has already more than enough to do to carry out his proper banking business? and why should the power be delegated to the chief official of an institution of which the business should be confined to finance? Instead of entrusting the control habitually to the Secretaries of Central Banks and only in exceptional cases to the Chairman of the unions, the proper procedure should be the other way about.

Reasoning from analogy is often dangerous, and neither political nor philosophical analogies should be allowed to induce us to deflect co-operation from its right course. This is the day of representative institutions and the co-operative system in the Central Provinces has been admired on the ground that under it the societies are controlled by persons responsible to them and deriving their powers from representative institutions. But there is no necessary connection between the attainment of the representative ideal in co-operation and the aggrandisement of the Central Banks. The ideal of representative Government in the co-operative field can best be attained by a representation of unions and Central Banks on an equal footing in the Council of the Federation. The educative influence of representative institutions can be fully secured in this way, as is proved by the successful working of the system on the Continent.

Mr. Kelkar relies on an organic conception of the co-operative body to justify the relations that prevail in the Central Province between Central Banks and Societies. He quotes the view that

‘ If the foot shall say, Because I am not the hand

‘ I am not of the body ; is he therefore not of the body? ’

But it is just at this point that his powerful advocacy appears to be not at its best. According to all biological analogies, as an organism develops it should develop specialized organs for each of its functions. On that principle the co-operative body should have one set of organs—the unions for control, and another set of organs—Central and Provincial Bank—for financial work. Any scheme which combines diverse functions in one organ must be of the nature of a temporary makeshift and implies a rudimentary stage in the growth of the organism. In practice the organic conception of provincial co-operation, might lead to grave anomalies unless one is very careful. The habit of looking at the organization in its entirety might be developed to such an extent that the individual parts come to be neglected. Thus, in the province which has led the way in the introduction of the new system, we find that while immense labour has been lavished on strengthening the upper portions of the edifice the material of the foundations is not proportionately strong. The average

membership of the primary societies is only sixteen and far too great a proportion of the resources of the societies is locked up in shares of central banks and in reserve funds placed with these same banks for outside investment. Mr. Ewbank has warned co-operators against making a fetish of the general credit of the system as a whole, and results show that he was perfectly right. In the province concerned vast fluid resources have been accumulated at the top; while the standard of 33 per cent recommended by the MacLagan Committee for fluid resources was itself criticized as impracticably high, that particular province has raised its fluid resources to the unheard-of proportion of 68 per cent. This locking up of such great resources necessitated greater efforts to obtain capital for the ordinary needs for the societies; consequently the rate of interest on deposits was raised, and as a further result the rate of interest for members of societies newly registered had to be fixed at 15 per cent. The corollary of this rise of interest was the discouragement of the formation of new societies. As a result of the policy of draining away the resources of primary societies for the purchase of shares of Central Banks, the deposits of members have shown a considerable decline. The deposits of non-members have declined at a still greater rate. On the other hand, the societies have become dependent for their finance to a much larger extent on the Provincial and Central Banks. The organic theory of co-operation has evidently not conduced to the financial or general strength of the primary societies.

The critic of the new system cannot however deny the existence of reasons which have in various provinces of India made it necessary to entrust powers of control to Central Banks as a temporary measure. In those places where primary societies are educationally very backward they cannot be entrusted with the freedom which they can legitimately enjoy in more fortunate provinces. For example, most agriculturists in the Central Provinces are so fearfully backward and poor that it is doubtful if any practical alternative to the Central Bank system is yet in sight there. Another tendency which favours the assumption of functions of control by Central Banks is the small size of our primary societies. As Mr. Wolff says, 'there seems a rather dangerous tendency in India to overdo the smallness of societies. It is that overdoing, which among other effects, concentrates business in the hands of Central Banks and makes these the "pivot"—that is a mistake'. It must also be admitted that guaranteeing unions have not yet been acclimatized in all parts of India; and in those provinces where they are not yet in existence we must needs en-

trust the Central Banks with some measure of the function of control over the primaries. There was undoubtedly a period of transition before Indian co-operation had been equipped with the full equipment of propaganda, supervision and control, viz., the Co-operative Organization Societies, Central Institutes and Guaranteeing Unions, when Central Banks had to be furnished with more than their normal powers. Mr. Wolff himself wisely acknowledged that this was for the time being the best course. He observes in an article in the Bengal, Behar and Orissa Co-operative Journal : -- ' You have in India tried control by Central Banks. And under the circumstances that is *for the time* probably the most advisable solution of the problem.' But he emphatically says that the Central Banks are only temporarily to be endowed with this additional function of control. ' The Central Bank is, *when all has been got ship-shape*, to serve, not to be tutor to, the local Banks '. No blame need be attached to those who during such a period of transition sought or seek to enlarge the powers of the Central Banks. But objection must be taken when the temporary situation is attempted to be crystallized as an ideal one for all time to come.

The chief reason why organization on the new lines has become so popular is the great and immediate scope which by its means can be afforded to non-official agency in co-operation. Through Central Banks the non-official element has been able, in the first place, to take up the work of co-operative finance. Further, as this element is strong on the directorates of these banks, the dominant position now given to these banks as regards control can be utilized to gather in non-official hands the controlling function as well. It is undoubtedly true that this result can be attained by means of the new form of organization ; but a big price has to be paid for thus proceeding by a short cut—the weakness of primary societies and the dangerous accumulation of the functions of finance and control at a premature stage. No one can or does want to delay by a single day the time when non-official agencies will take up both the control and the finance of the co-operative movement. But that can be best achieved, as on the continent, where non-official representatives of unions, central banks and other co-operative organizations meet on a footing of equality in the chief co-operative council. Is it worthwhile to distort the organization of our system in order to transfer the control to non-official hands a little earlier ? Co-operation moves forward by means of its two organs of finance and control ; and in order that the progress may be sure and rapid, both legs should be strong and sound. If one leg receives an undue

development and the other is atrophied the movement of co-operation will be of a limping character. We have all heard of a 'limping standard' in monetary matters; but a limping standard in co-operation is not a consummation to be desired.

The True Sphere of Central Co-operative Banks

By PROF. P. C. BASU, ST. COLUMBUS COLLEGE, HAZARIBAGH

In the Agricultural Journal of July 1918 Mr. Ewbank, Registrar, C. S. Bombay, published a very interesting article on the True Sphere of Central Co-operative Banks, in which he wanted to show two things (i) the danger of undue interference with primary societies by Central Banks (ii) the advisability of divorcing the non-banking functions of a Central Co-operative Bank from its banking functions proper. He wanted to point out that it would be better if the non-banking functions were undertaken by a body which could devote its undivided attention to them. What he wanted was a division of functions—a division of labour. The gist of the argument of Mr. Ewbank appears to me very reasonable and sound. Unfortunately the strong language used by him and his sweeping remarks have given rise to a hot discussion on the subject. Vigorous replies have been made by Mr. N. K. Kelkar—the energetic governor of the Co-operative Federation, C. P. and Berar, and by Mr. Collins, the late Registrar, C. S. Bihar and Orissa, who popularized Co-operative movement in Bihar by his sincere zeal and genuine sympathy.

The recent controversy among experts in co-operation makes me not a little embarrassed for taking up this contentious subject. It is only the interest in the subject that induces me to come forward. I have no pretension that I shall be able to throw any new light on the subject, nor do I take my stand as a controversialist to take one side or the other. As a student of Economics, I want to discuss the subject from a general rather than from a local standpoint.

I confess, I find it extremely difficult to point out in one word what should be the true sphere of Central Co-operative banks. It cannot be discussed in the abstract. Sweeping generalizations are not only fallacious but they may be dangerous.

The true Sphere of a Central Co-operative Bank depends not only on the constitution of the bank, so rightly pointed out by Mr. Kelkar (Agricultural Journal, January, 1919), but it depends

to a great extent on local environments. What may be the true sphere of a Central Bank in Germany, may not properly be the true sphere of it in India. The nature of the activities of a Central Co-operative Bank will vary according to the nature of the people concerned, their state of education, level of intelligence; and even material conditions should be taken into consideration. The stage of Co-operative movement may also be an important factor to be duly considered.

Before proceeding to discuss the nature of the sphere of a Central Co-operative Bank, let me point out the circumstances which gave rise to the necessity of such banks. In Europe, it was found out that many Co-operative Credit Societies had more cash in their hands than they could utilize for their own use, while a great many societies were suffering for want of funds. It was found out that if by some agency the surplus cash of the former banks could be utilized by the latter, the difficulty could be solved in a simple way. This need of balancing made the growth of some central institutions inevitable, and the Central Co-operative Banks came into existence in Europe to serve as 'the common cash box equalizing excess and want.'

In India, the need of Central Co-operative Banks was felt not so much for balancing as for supplying capital. When the Co-operative Credit Societies Act of 1904 was passed, the formation of Central Societies was not contemplated. It was believed that the capital of rural societies would be supplied by Urban banks. But soon the need of a special financing agency was felt. This need became very urgent, as the Co-operative Societies began to increase in number. The Fatehpur bank in U.P. and the Madras Central Urban Bank, probably the first Central Co-operative banks in India, were started in the year 1905 apparently to finance societies.

But to exercise the function of financing, the Central Banks have necessarily to undertake as they had to undertake in India, inspection, supervision and assessment of credit. A loan involves inspection. A money lender who is advancing money on tangible securities like gold ornaments, wants to test with the help of a touch-stone whether the gold of the ornaments is of good quality or not. He then assesses the credit of the borrower. In case of mortgage loans, the scrutiny of a lawyer is found essential to know for certain that the land has got good titles and that the mortgagor has right to the land. Even after careful examination, the creditor finds it necessary to charge a high rate of interest as a sort of insurance charge against possible lawsuits. In these cases, the creditor has not to enquire whether

the debtor is a bad character or an extravagant man, (the³ greater is the extravagance of the debtor—of course the better it is for the creditor). If minute inspection and scrutiny are necessary in case of tangible securities, how much more necessary they must be for the Central Co-operative Banks, when they finance Co-operative societies, the basic security of which is personal; character of the members of the Societies is the real factor in these transactions, while the loans are recoverable generally not in a month or two, but in several years.

The need of supervision, inspection and assessment of societies' credit by Central Co-operative Banks was fully recognized by the Committee on Co-operation. In their report we find the following recommendations:—

'In assessing a Society's Credit there are many factors which a Central Bank must not overlook. The data on which a primary Society fixes the maximum normal credit of each of its members and the reasonableness of the total borrowing power fixed by the Society for itself, should be carefully examined and tested by the union or if there is no union by the staff of the Central Bank and these data should, after verification, serve as the basis of credit, permissible to the society. It is then for the bank to decide, after considering the needs of the society and the funds at its disposal at what figure to assess the actual credit of the society for the year.

'In assessing the credit of a society, the degree to which the Society as a whole has developed its co-operative capacities, and the sense of mutual obligation among its members, is of the most valuable consideration.'

The view of Mr. Ewbank that the true sphere of Central Banks is 'finance and not administration and control' cannot be accepted in all cases. Perhaps he has used the expression 'Control' for domination; for if it means any form of influence, then he is open to objection. Whatever may be the nature or the constitution of Central Co-operative Banks, financial control is inevitable and 'control to be worth anything must be effective.' Mr. Ewbank himself admits that in matters of finance, 'centralization is not only unobjectionable but highly desirable.'

It is not too much to say that sometimes mere finance may be relatively unimportant and supervision is more urgent. This is specially the case when the people are habitually reckless in their expenditure or when they are very poor and there is an artificial limitation imposed by law, upon the transfer of their only property—land. I know the cases of many societies which had to be closed not for want of finance, but for want of scrutiny

and supervision which could only be effected, if there had been a Central Co-operative Bank to watch their movement. In Chitarporc area of the Chotanagpur Division of Bihar and Orissa, 112 societies had to be closed not for lack of funds, but simply because there was no central agency to scrutinize their action.

Central Banks were started in India at first to finance societies but it was soon found out that the opportunities of co-operation were immense in many localities and still for paucity of trained co-operators the movement could not be started in those places and that if a Central Co-operative Bank was started to undertake organization and propaganda work, not actuated by a spirit of dividend-hunting, but simply to foster co-operative movement by being the chief instrument of spreading co-operative education, then the co-operative movement could advance satisfactorily. So in different parts of India, Central Co-operative Banks were started later on, with a few societies only under their jurisdiction to undertake organization of societies and thereby further co-operative movement.

In these cases the true sphere of a Central Co-operative Bank was not finance as such, but to become the nucleus of Co-operative movement. Here finance became the secondary function; organization, propaganda and teaching became the primary functions. In backward tracts where mass education is very unsatisfactory or where the people are intellectually low and are slaves to custom, the Central Co-operative Banks had necessarily to undertake these things. Even in more advanced localities, in the early stage of co-operative movement, the primary societies are scarcely ripe for carrying out their own transactions satisfactorily; so the Central Banks have necessarily to undertake many things besides finance. In course of time when the societies learn to stand on their own legs, the Central Banks may be relieved of some of these functions. But in the early stage they have to play the role of friends, philosophers and guides. One might call this spoon-feeding but 'this artificial leading and feeding from above' will be necessary unless and until mass education spreads satisfactorily.

The controversy has been very keen on the question of propaganda work. The solution of the question depends partly as has already been pointed out, on the nature of the people concerned and partly on the nature of the constitution of the Central Bank itself. If the Central Co-operative Bank consists of individuals only, then one might take objection to its undertaking propaganda work because it may give rise naturally to a suspicion that it is anxious for the artificial creation of societies

with a selfish motive ; but when a Central Co-operative Bank is fairly representative of societies and is not actuated by any sordid motive of getting dividend only, I see no objection to its undertaking propaganda work. Our motto should be expediency. Peculiar circumstances themselves should be sufficient justification. We need not go to Europe or Japan in search after precedents to justify our action, though everybody acquainted with the history of Co-operative movement in Europe, knows that the Central Co-operative Banks in some parts of Europe (e.g. Netherlands) had to undertake propaganda work with banking. Experience shows that the result has not been unsatisfactory. Every locality may have its own problem to solve. Uniformity is dangerous. Because the Central Banks have undertaken a particular function in Europe, it does not necessarily follow that it will be desirable for the Central Banks to undertake the very same function in India, without special regard to Indian conditions. Mr. Wolff himself seems to be conscious of the peculiar conditions of India and in his Co-operative Banking we find the following remark.

‘In India they (Central Banks) are rather intended as propagandist seed plants placed in certain districts to scatter their seed abroad in order by such means to raise up a growth of village banks which latter become rather branches or agencies of the Central Banks. Circumstances in India are in various respects very peculiar, but generally helpful to the organization of local banks. Accordingly in that country this new method may be found of advantage or even necessary. Elsewhere however it is to be feared that the advantages gained would be very dearly purchased by the sacrifice of that strict local control independence and self-containedness which are by all Co-operative Banks, held to be of the first importance and indispensable to successful existence.’ (Co-operative Banking, Henry W. Wolff, foot-note pages 188, 189).

Mr. Collins has also shown illustrating with facts that there may be no objection if the propaganda work is undertaken by Central Co-operative Banks.

India has enormous potentialities in manufacture and agriculture, yet for want of organization and capital there has not been very substantial progress. We want banks not of the ordinary type, but industrial banks ready to undertake organization of industry and at the same time to provide necessary finance.

Besides organization, finance, and propaganda work, Central Co-operative Banks in some parts of India have to undertake

many other functions. They supply manure, seeds and agricultural implements, etc., start primary schools, provide cheap medicines and perform many other similar functions. In the absence of appropriate agencies for these things there cannot be any objection to the undertaking of such things by the Central Co-operative Banks. If the Central Banks did not undertake these functions, the people could not get the advantage of them. When special arrangements would be made for the provision of these things by other agencies, then the Central Banks may be relieved, till then there cannot be any harm if they are undertaken by the Central Banks.

I thank Mr. Ewbank for sounding the note of warning against excessive centralization. There can be no denying of the fact that after the passing of the Co-operative Societies' Act of 1912 there had been a distinct tendency for several years towards centralization in many places and so far as a district or a sub-division was concerned the Central Bank had been in some places practically 'the axis round which the Co-operative movement' within the district or sub-division 'turned;' for the sake of argument one might call this a tendency towards unification or better discipline, but it was nothing but centralization though a necessity in many cases.

The process of decentralization has already commenced and many of the functions undertaken previously by Central Banks are being delegated to different bodies. Honorary organizers have been introduced to undertake the organization of societies, though in some places the organizer happens to be some office bearer of a Central Bank. Federations have been formed for audit work and unions are being introduced for supervision and inspection, etc.

It may not be out of place to mention that the process of decentralization must not be very rapid. Centralization is bad, but too rapid a process of decentralization without special regard to local peculiarities may be worse. The success of guarantee unions in Burmah has given rise to an eagerness to increase very fast the number of such unions in different provinces. But we should not forget that in matter of elementary education Burma holds the first place. This is due to free instruction imparted in the monasteries. In Burma out of every 1,000 males, 376 can read and write, while in Bengal which comes next, only 77 out of 1,000 are literate and the number of the literate persons is still lower in other provinces. The view of Mr. Wolff that 'of all dangers, that to be most carefully guarded against, is the inter-connection of liability among various banks' is particularly true

when education is most unsatisfactory. 'There may be' some force in the remark of the critics that to introduce co-operation before mass education is to put the cart before the horse. Unless mass education advance *pari passu* with co-operative movement, the superstructure of co-operation may be on sandy soil. In this connection, I beg to propose that some very elementary textbooks on co-operation in vernacular should be taught in primary schools. This alone can ensure the success of co-operative movement in future and if this is continued for a few years the Central Co-operative Banks may be relieved of the functions of teaching and organization which may be undertaken by the villagers themselves.

I want to close this paper after speaking a few words on the constitution of the Central Co-operative Banks. As has been pointed out by Mr. Kelkar, there are three types of Central Banks in India. In the first group only individual shareholders form the members. In the second group the membership is confined to the societies only, while in the third group membership is open to individuals and societies. The number of banks in the first group is relatively small and in future similar banks may not be registered at all. There is a tendency in some quarters to consider the banks of the second group as the ideal. Because 'the antagonism of interest between the shareholders and the borrowing societies is eliminated by the identification of the two parties.' But in my humble opinion the best form of constitution which a Central Co-operative Bank may have, is one in which the membership is open to societies as well as to individuals. Not only because the latter can supply business capacity and better credit but also because it can serve the purpose of co-operation in a better way. It will create an interest in gentlemen of leisure and rest for the welfare of societies, it will suppress any tendency of antagonism between the class and mass, between the urban and rural parts of Indian population. The meeting place of the directorate of the Central Bank will serve as the common forum, in which the gentry and the common people will meet side by side for the interchange of sympathy and deliberation on matters affecting both.

In future, what will be the true sphere of a Central Co-operative Bank in India only the future circumstances will decide but for the immediate future its function is not simply 'to say yes or no to loan applications' but to foster co-operation by dissemination of co-operative principles. If the sole function of the Central Co-operative Bank is finance and not anything else then I believe their existence becomes unnecessary, because that

function can, with greater economy and less trouble, be undertaken by branches of provincial banks.

The Co-operative movement in India was introduced not simply to supply money to the people but to encourage thrift, self-help and co-operation; grant of money may be necessary to accomplish these objects but that is not an end in itself but only a means to an end.

To sum up, the true sphere of a Central Co-operative Bank cannot and should not be discussed in the abstract. It must depend upon circumstances and it cannot be the same in all cases. When the co-operative movement has advanced satisfactorily and the societies are competent to manage their own affairs, then its true sphere may be finance but when these conditions are not present and the people are backward in education and are not familiar with the principle of co-operation thoroughly, the true sphere of a Central Co-operative Bank is not only finance but administration and control as well. As the circumstances exist in India to-day, I think for the immediate future in many places the Central Co-operative Banks should provide not only money but also guidance, searching examination and inspection and above all 'they should keep the societies straight.'

I cannot do better than close this paper with a quotation from Mr. Collins' Hints on the starting of the Central Banks. 'If the co-operative movement is to succeed in India, it is clear that Central Co-operative Banks have a great responsibility upon them, mere provision of money at a cheap rate would not free the cultivator from his bondage.'

Co-operative Finance and Supervision

BY. C. P. SUNDARA RAO, KAMBAINALLUR

[ABRIDGED]

This paper bespeaks your attention to two of the chief problems that go to the root of the great co-operative movement, viz. Finance and Supervision. Do they go hand in hand? Can the same agency effectively do both? These are questions that have been anxiously asked and variously answered.

According to one view the Central Banks are the pivot of co-operative administration, originally intended to provide capital to the societies and to balance surplus funds, if any, they felt that in discharge of their duty to safeguard the interests of the shareholders, they should judge independently of the real needs of the societies the value of the security they offer and the soundness of their methods of work. So far they were right, but when they went on to direct propaganda, organization, supervision and training, they undertook much more than they could do usefully and well.

Effective supervision requires a competent and full staff entailing considerable expense. Can the Central Banks afford it? Some made it a grievance that they had to pay towards the Supervision Fund; and they had indeed a real grievance. The learned Registrar of Madras in Para 39 of his Administration Report for 1915-16 draws attention to their 'Life-struggle with dividends, honoraria and supervision', and points out that supervision being weakest will go to the wall.

Again are the Directors of Central Banks the best persons to undertake the control of the Supervisors and Inspectors? Have they the time, have they even the inclination, to study the practical problems that confront and puzzle the co-operative worker at every turn? Drawn generally from the professions they know little of these and care less. In the absence of intelligent interest and well-informed criticism their control would be at the best mechanical and lifeless.

Even in the case of Central Banks with society shareholders we do not think that there is a community of interest to such a degree as to justify the assumption of supervision. Central Banks cannot indeed 'lend money with advantage or safety to individual ryots whom they have not seen nor ever met and whose credit they cannot gauge through a staff they cannot check or control.' But if such a valuation of assets is placed at their disposal by a reliable organization which assumes full responsibility short of guarantee, the Directors ought to be content and feel safe. Rather than overstrain the machinery with the fear of an ultimate break-down, they can concentrate more effectively on their primary function of finding adequate and ready finance for the wide range of co-operative activity and relegate the subsidiary work to other agencies specially designed therefor.

The Central Banks would therefore be well advised to limit their activities to the sphere of Finance.

We have then to consider what agency can attend to the important work of supervision, what should be its composition and character. The fundamental maxim of supervision may again be briefly noticed. The movement being a People's Movement, the ultimate authority rests with the people themselves. So, for the sort of intimate and constant interference that efficient supervision implies we must secure the maximum of Local Responsibility and the minimum of Delegation. Decentralization and Devolution must rather be the rule. Supervision aims at not only audit and inspection but education as well. It necessarily includes a thorough examination of the exact state of affairs not only as evidenced in the books of the Society but also as will become evident by a free talk with the members. Publicity is the panacea for all chicanery. An efficient supervision will have to put the society's executive in the way of doing things correctly, aid them in any special or difficult work and occasionally pull them out of any tight corner they get into.

All the existing agencies for local action are wanting in coherence and homogeneity to be of much use to us. Individuals may occasionally lend weight and influence to local work. But for the systematic and sustained work that an intelligent control over efficient supervision calls for, we must create our own organizations. Such supervision is best done by a local union with representatives of all constituent societies, the general assembly working through a Governing Body, and controlling a specially trained staff.

We must not, however, forget that even here the real work actually turned out is limited in various ways and by diverse

causes. The supervisor—paid or honorary—has scarcely enough time to thoroughly attend to each institution. The union cannot always evoke a satisfactory response from the Punch-
yets of societies. The varying ability and enthusiasm of the staff, the intelligence, interest and capacity of the Executive Committee, the personality of the President, the Secretary's driving powers and his capacity to infect others with his enlightened enthusiasm, are all factors that go to make or mar the union.

There are again many dangers to guard against, such as their degeneration into 'one-man' control, the evils of coddling and patronage, and more than all the overdoing of the work by putting on too much curb. There looms also the bane of exclusiveness, of vested interests, of coteries even in these small bodies designed though they be for common work and service.

But much of these may be guarded against if small, contiguous and close areas are selected for work, if the governing body members are chosen wisely and well from a wide field and if a proper division of work is insisted on, each being entrusted with a well-defined work with a definite responsibility. Capable young men, active and wide awake, of fair educational attainments with an elementary knowledge of Banking and Commerce should be selected and after a proper training and probation started on a decent salary with fair prospects. More than all the union should strive in every way to stimulate the energy of constituent societies and encourage them to develop on their own initiative. They must be let to work their own way out with experiments, expedients and even eccentricities so long as they do not militate against the chief canons of co-operation.

The finance of these bodies may come out of the affiliation fees and supervision fund contributed by the Central Banks and the societies with special subsidies when necessary.

These Councils may again be brought together in a Central Provincial Federation which will study special problems, give authoritative advice, systematize the work in the districts and carry on a vigorous propaganda in backward areas and among backward classes. They will educate and train co-operative workers—official and non-official. They will spread wide the cult of co-operation and advance its ideals.

Along with the co-operative wholesale society and the Provincial Bank this Federation will crown the edifice of non-official co-operative agencies built up from the bottom.

We shall proceed to consider how best the Central Banks can discharge their proper and primary function of fully and freely financing co-operative concerns.

The crying needs of city life are a pure milk and ghee supply, wholesome victuals at reasonable and certain prices, decent and sanitary dwellings, good medicine at fair rates, and small but opportune advances for short terms. There are besides problems peculiar to labour conditions which require prompt and tactful handling. We can therefore help them by the organization of milk supply with subsidiary dairy activities, by co-operative purchase stores, Building Societies, and co-operative Dispensaries. We can promote the cause of healthy Industry by stimulating small and cottage Industries on co-operative lines and by encouraging Trades Union Societies of workmen and mill hands. Special classes like Municipal or Railway Employees and Elementary Teachers and special Communities like the Fisherman and the Chuckler call for well informed and well studied effort on suitable lines. Co-operative contracts, co-operative cultivation of waste lands, are also practicable and beneficial ; we would also commend the idea of co-operative settlement for disabled soldiers. Co-operation has also been found to help in making useful citizens out of criminal tribes. Grain supply, joint purchase and sale, seed selection, manuring and breeding are rural problems we can help to solve. Adaptation of new methods and machinery and adoption of new crops are greatly facilitated by the societies. Add to these the various purposes for which money is even now borrowed in credit societies and we will readily acknowledge that an adequate and ready financing of this wide range of beneficent activities would demand a vast addition to the resources of Central Banks.

At present these Central Banks depend mostly on the deposits and over drafts. There is always the danger in both of a sudden demand which necessitates the maintenance of a fluid resource at a high ratio to the transactions.

We shall proceed to indicate some new sources of capital. At present the Deposits, Earnest Advances and securities and such like investments in the Public Works Department, Local Fund Department, Railways and many mercantile firms are held either in Government securities at three and a half per cent or in the Savings Bank. They are not liable to be called in at least for one year. They generally run from April 1 to March 31. The short term needs of Agricultural and many non-Agricultural Societies are from July to November, and the repayments will be about the middle of February, so that allowing

a margin of twenty-five per cent we may be sure that seventy-five per cent of our advances will be repaid before March 31, so as to be available to meet the demands of the depositors. We can therefore safely use these deposits for short term loans. Moreover most of the Public Works Department or Local Fund or Railway Deposits will run from year to year. Such investments may be had at six per cent at most and may be lent out at $9\frac{3}{4}$ per cent for short term advances. The larger margin will go to strengthen the reserve and make up for the narrower margins elsewhere.

Provident Fund Deposits of Government and quasi Government Departments can also be made available for investment in Central Banks and Loans may be directly given to the Depositors on the security of these Deposits. Here also the margin of profit will be 6 per cent — $3\frac{1}{2}$ per cent, i.e. $2\frac{1}{2}$ per cent, and as the Deposits are payable every month it will incidentally add to the fluid resources of the Bank.

Again it is the experience of many Joint Stock Banks that there is a vast quantity of 'idle' till money in certain seasons of the year. Such funds may be made available for very short advances.

We may now consider the desirability of the Societies being entrusted with the disbursement of loans under the agricultural loans Act XIX of 1883 and the Land Improvement loans Act XII of 1884. We would point out at the very outset that even now the Societies do lend extensively for purposes identical with and cognate to those mentioned in Section 4 of these Acts. Figures for the last three years show that such advances come up to about 50 per cent of the loans for Productive purposes. Government could surely place at our disposal the funds they allot to Takavi Advances at 5 per cent. Here is a good source of capital both for short and long terms at easy rate.

We next come to trust funds. In this land of charity huge sums of money are endowed for religious and charitable purposes. There are also occasional secular endowments for educational and other purposes of social welfare. There are again Public and Private Trusts where a wide discretion is left to the trustees. The rich hoards of money in Dewasthanams and mutts are being slowly brought under wholesome control. Now all these moneys except when otherwise specifically directed in the instruments of trust must be invested if at all, only in the ways mentioned in Section 20 of Act II of 1882 and Section 4 of Act VI of 1890. The Trustee has to see that he runs no risks and does not endanger the safety of the corpus of the fund. The

interest he earns is not considered very material and nowhere exceeds four per cent. Government Securities are liable to great depreciation. Stocks, shares and debentures fluctuate in value. The causes that go to increase or decrease value of real property are many and various. Yet these are considered proper investments. With the annual official Audit, its accessibility to the public, the special priorities that the Societies' debts enjoy, with the formalities necessary before money is lent out, with the least taint of speculation in its business, with the continuing liability of the members and above all with the bedrock of unlimited liability, the business of the Society affords an unparalleled security. It is to be hoped that the Legislature or the High Courts will soon see their way to amend the Act or rules thereunder to make this source available to the movement.

We have next to discuss the possibility and practicability of the Issue of Debenture Loans. It is scarcely necessary to detail here the necessary conditions for the issue of such stock except to point out at the very outset our greatest difficulty in that we have scarcely any definite income apart from our general transactions to earmark towards the interest and Sinking Fund. The ultimate security on which the whole system will be based is the unlimited liability of members constituting our Primary Societies. It would not, I conceive, matter very much that the bonds of our Primary Societies are not mortgage bonds because they are always backed by their full responsibility. All legal difficulties may perhaps be obviated by making the loan an express charge on the property statement supporting each application. The reserve funds of societies amount to 15 lakhs. If these are invested in gilt-edged securities or other stock with Government guarantee they will form a sufficient fluid basis for transactions of at least eight times the face value.

We now come to the last of sources we suggest, viz., the utilization in India of a part of the Gold Standard Reserve and the Paper Currency Reserve. The time seems to be rather favourable for such a measure. The exchange will we trust be more steady than it has been of late. The price of silver is rising and a free import of gold into India as recommended by Sir John Wilson and the adoption of a Gold Standard with Gold Currency as recommended by the Fowler Committee will tend to make the exchange quite steady.

We can therefore presume that the purposes for which the Gold Standard Reserve is maintained in England will hereafter

demand less attention and the needs of Indian agricultural and Industrial development will meet with more sympathetic response.

It is in every sense the peoples' money and it can be best utilized in a movement in which it is open to the lowest tax-payer to participate to his real benefit.

Discussion

PROF. C. J. HAMILTON said that there was no doubt that the people in Indian villages suffered enormously from the defective organization for the collection and marketing of their produce, and for the distribution of the commodities which they purchased. He knew by his own observation that this was so in Bengal, and it must be so also in other parts of India. If the objects aimed at in Mr. Hemingway's scheme could be attained the gain would be enormous. With regard to the method Mr. Hemingway raised a very important issue. Writers on co-operation in India had generally been of opinion that co-operative trading, if started, should be kept separate and distinct from the whole organized system of Co-operative Credit Societies. His own impression was that that was also at the present time the prevailing official view. But Mr. Hemingway advocated the contrary view, that co-operative purchase and sale should be regarded as a natural activity of credit societies.

MR. C. V. CHANDRASEKHARAN said that it appeared to him that most of the objections raised by Professor Coyajee against the expansion of the functions of the Central Banks apply to their existing constitution. When the Central Banks come to be constituted almost wholly out of the representatives of Primary societies these objections should disappear. That the latter constitution is the ideal to be worked up to is clearly stated in the MacLagan report. By the limitation of dividends, and of the proportion of individual shareholders in the Central Banks we have already begun to take the first steps.

Central Banks thus constituted could well cease to be mere financing bodies. They could become the organizing centres of the co-operative movement as regards purchase and sale and for educational propaganda. A genuine federal organization could be built up. It seemed to him that the lack of vitality of the movement is due to excessive officialization in the matter of control and supervision on the one hand and the policy of starvation in the matter of finance on the other. They should either completely officialize the movement, finance and all, or completely unofficialize it.

Ultimately they had to face the question whether the educated classes could be trusted to work for the interests of the people in a disinterested spirit. It was a matter of faith and he had faith in the educated classes.

Pessimists said that the movement would collapse if it were unofficialized. He was even willing to face that risk because he was confident that the movement would be born again and grow up on sounder lines. Dr. Wolff in his latest book had clearly stated the ideal of the movement, namely that the Registrars of Co-operative Societies in India should be divested of the functions and powers which they exercise now and should become like the Registrars of Friendly Societies in England.

Many other speakers took part in the discussion.

DR. GILBERT SLATER, in replying on behalf of Mr. Henningway, pointed out that British experience confirmed the view that Co-operative Banking, and Co-operative Purchase and Sale may advantageously be carried on by one and the same society. The British Societies on the Rochdale type practically always had their banking departments, which were run with extraordinary efficiency and economy, and the Banking department of the Co-operative Wholesale Society was one of the most notable co-operative banks in the world. British Experience also indicated that the organization of Co-operative Production should largely rest in the hands of societies of the Rochdale type like the Triplicane Urban Co-operative Society.

Fourth Day

**The Adaptation of the Indian Tax System to the
need for Increasing Expenditure**

The Chair was taken by PROF. ANSTEY

PAPERS

British Indian Sea Customs Duties and Indian States

By RAO BAHADUR SARDAR M. V. KIBE, M.A.

One of the chief sources from which the Government of India can hope to derive an increased amount of revenue to meet the growing expenditure caused by the war debt and the requirements of civilization, would be the sea customs duty. It is easy to collect and being an indirect tax is not felt.

Under the influence of the free trade doctrines, the sea customs duty, until a few years ago, was levied for revenue purposes only. Even under the stress of the expenditure caused by the war, the object has been adhered to. Although there was an all round enhancement and the levy of the duty on many hitherto free articles, yet, except perhaps in the case of the cotton cloth to only a slight extent, it had no taint of protection. It is only lately that apparently a protectionist policy has been adopted in the case of raw hides. It is, however, more in the interests of the British Empire than of India. But it shows the direction in which the wind is blowing. It is almost certain that this source will be increasingly utilized for the purposes of revenue as well as for protectionist purposes.

Apart from them there is one more reason why this source must be looked to for supporting the increased expenditure of the nation. In all industrially advanced countries, the land revenue bears a progressively less ratio to the revenue from other sources. At present it brings in about one-third of the income to the exchequer and although it is likely to be increased, due to high prices and general prosperity, yet as India progresses industrially its income from other sources will be more increased.

But while British India would be perfectly justified in looking to these sources for meeting its increased wants, yet it should not, and cannot legitimately desire to profit at the cost of others. Such would be the case if it fails, as it has hitherto failed, to take account of the inland Indian States.

By reasons of its geographical, no less than political position, the British Government holds a predominant position in India. But its relations with the numerous Indian States are regulated

by means of treaties or other solemn engagements. Freedom from British taxation is their predominant feature. In that respect they stand on an equality with European States, like, for instance, Switzerland.

This fact, however, is ignored in the case of the sea Customs duties. As at present enforced they operate as transit duties. Recognizing the deleterious effect of transit duties on trade, the Government of India abolished all other transit duties, the last of them disappearing in 1870. But it was not until 1887 that it succeeded in inducing the last of the Indian States to do away with them. While abolishing them some of the states did so unconditionally, while others reserved their right to levy them, in case they wished to revive them. It is unthinkable that they could ever do so in view of the development of the means of communication in the country, but is not the British Government morally bound not to levy any duties in the nature of transit duties?

The trade of the inland Indian States is with the ports. Goods, which are there in the market, have already paid the sea customs duty and they come to the territories of the Indian States burdened with it. Even if their subjects were to arrange for the import or export of goods directly from or to foreign countries, the customs authorities at the ports, as at present guided, will enforce the duty on the arrival of goods there.

The result is that even if the subjects of the States arranged for direct imports or exports, they cannot escape the sea customs duty. The Governments of States are also handicapped by the fear of burdening their subjects too much, as their own duties impose an additional burden, they cannot derive the fullest advantage from their State duties. So neither can these be utilized for revenue purposes and assuredly not for protective objects. Even as it is, the subjects of the States which at all levy a customs duty are doubly taxed. The Indian States, however, on their part, to respect the undertaking of not levying transit duties, grant drawbacks on goods even breaking bulk in their territories.

This situation had arisen in America and Europe, but has been impartially solved. Goods intended for Canada going through the port of New York, when not breaking bulk there and passing in bond, are allowed to pass duty free. The same is the arrangement in the case of Switzerland. In the case of Serbia, as it existed before the Balkan War, a strip of land was allowed for its goods at the port of Salonica and they were then carried by rail to Serbia.

In India too the British Government has not been unmindful of the claims of some Indian States at least. When the Government of India abolished the last of the transit duties in 1870, it entered into special negotiations with the State of Cashmere not to charge customs duty on goods passing through it. Probably a similar arrangement existed with Afghanistan for goods intended for that country. In the case of the maritime State of Travancore, the Government of India placed no customs barrier on its frontier on the former's undertaking to enforce the latter's tariff at its ports. Recently the same arrangement has been entered into with the maritime States of Kathiawar and Gujraht. It is believed that if the State of Mysore builds its own railway to Bhatkal or Mangalore, it will be allowed the same facilities. In fact the principle adopted in the case of the Indian maritime States has been followed in the case of inland States in the matter of the cloth excise duties. The cloth produced in mills located in such States is allowed to come freely to British India if it has paid the same duty to the State.

Justice demands that the Indian States should get the same relief as regards sea customs. Different methods can be suggested under this head. One method would be to allow the goods coming from other countries by sea to be consigned to a place in the Holkar State, for instance, in bond, without breaking bulk at the port of entry. Special seals would be placed on the parcels, or on the whole railway trucks by the customs officials at the port, and the railway authorities would be required to deliver the consignment with seals unbroken beyond the British territory. Another method would be to allow the Holkar State to have the right to acquire at each port a strip of land at the Docks on which it could erect its own warehouse and customs stations. The State Customs duties would be levied here, and goods would be consigned from here to the State under the seal of the Holkar State customs. This method has the advantage that consignments from abroad could be broken and sub-divided at the port town itself, the British duty being paid only on the part not entered into or retained in the State warehouse. A third method would be for the British Indian Government to collect at British Ports customs rates on all goods consigned direct from abroad to a place within the Holkar State, and conversely an export duty on goods consigned from the Holkar State to a foreign country, and to credit and pay over to the account of the Holkar State the exact amount of such collections. The fourth method would be to allow the collection of customs to continue as at present, but for the British Government to pay over to the Holkar State a share of

the whole customs revenue. Finally the method already prevalent in India in the case of re-exports by sea and by certain specified land routes may be adopted. (This method resembles (1) in certain points). If the re-exports be by sea the British Government allows a drawback of seven-eighth of the import duty.* Reexports by land are allowed a drawback only if the goods* 'in bond' reach Jammu or Cashmere, Muzaffarabad and Alibag† as also on those transmitted under customs seal by the Hoshiarpur route through British India and the territories of His Highness the Maharaja of Cashmere and ‡ Jammu. In the case of the Holkar State, in compliance with sub-section (5) of para 223 of the Calcutta Customs House-Manual or any similar code, the customs authorities may send the duplicate of the invoice direct to the Agent to the Governor-General in Central India.

This last method seems to be the most appropriate for adoption in the case of Indore, since it is already in force in India for which the customs House at the ports of entry are in possession of adequate laws. It has moreover this feature to recommend it that it would secure the distribution of the customs revenue not according to the number of population merely or the income of a State but according to the volume of trade which may be taken as a reliable index of the economic development of a State.

When the British Indian duties were small and the subjects of Indian States had not become cognizant of the drawbacks of purchases at the ports only, the question did not attract much attention. Now the British Indian duties bid fair to be greatly enhanced and extended. The wants of the Governments of the Indian States, which cannot remain aloof from the progress in thought and material prosperity in the surrounding territories, are increasing and they must have expanding finances to meet them. Such a fruitful source of revenue as the customs duty cannot long be cut off from them.

Once the principle of how to meet the legitimate demands of the Indian States is settled, a few other questions of detail will require solution. But they would be matters of detail. If India is to progress and prosper it must do so as a whole. One part of it cannot prosper at the cost of another. The question requires solution at the hands of politicians as well as of Economists.

*See s. 42 of the Sea Customs Act 1878.

† See Calcutta Customs House-Manual standing orders page 85, para 223,

‡ Ibid, page 86, para 224.

Problems of our After War Finance

BY RAO BAHADUR K. V. RANGASWAMI AIYANGAR

Perhaps the most difficult of the economic questions which India will have to solve, now that peace has come, will be that of finding ways and means in her fiscal system, which would prove generally acceptable, for the needs of her inevitable and growing expenditure. Before the war, India had comparative freedom in the choice of sources of revenue, and despite occasional adverse criticism directed against the incidence or the policy of particular taxes, her general scheme of revenue has been usually regarded as simple, unonerous, unwasteful and conservative. The war took India by surprise, and it was only after a year of experience that the pressure of the altered conditions came to be felt in her financial system. Even in the official year following the outbreak, the total expenditure of India (£85·6 millions) barely exceeded that in 1913-14. In 1916-17 and 1917-18, however, the expenditure rose steeply to 98 and 112·6 million sterling, and the revised estimates for 1918-19 had to make provision for an anticipated expense of 125·8 millions. It is significant that the expenditure in 1917-18 was just twice that incurred twenty years previously. The budget of 1919-20 estimates the expenditure of the year at about 123 millions, and it is probable that the figures of the actual expenditure will, when available, show that the first year after the peace has not been much behind the previous year of war. All this increase, implying a corresponding stretching of the revenue, has been rendered possible by the new taxation proposals introduced by Sir William Meyer in March, 1917, involving the straining of some of the existing sources of revenue such as the excise and customs and the income-tax, unrelenting stringency in the collection of all items of income, and recourse to new sources of revenue, such as the export duty on jute, the surcharge on railway traffic and the super-tax introduced in 1917, and the excess profits duty introduced with the last budget. The pressure of taxation would have been more intense but for stinting expenditure in many directions, and the increased income accruing from the prosperity of industries which catered to the needs of the war, and the

increased traffic on railways due to the movement of troops and military stores. Above all, the biggest *direct* contribution made by India to the war, the hundred millions sterling gift, was raised by internal borrowing. A loan of such unprecedented magnitude was rendered possible by the prosperous years preceding the war, and the era of surpluses during which, contrary to academic economic tradition and the popular demands, even railway development had been financed out of the revenue. During the epoch, the redemption of the ordinary or unproductive portion of the Indian Debt had gone on continuously till it had almost entirely been wiped out. (It stood only at £2 millions in 1916). The contribution raised the *total* debt of India by about thirty per cent. and added about £6 millions to her annual recurring expenditure. This addition to the fiscal burden might appear trifling, if only the area and the population of India were considered, or her annual revenue, and if one did not remember that even in recent years, when the Government has been fully alive to its responsibility for social reform, in its widest sense, it was not exceeded by the *aggregate* expenditure on such vital objects as Agriculture, Education, Medical relief, Sanitation and the Scientific departments. The vast internal borrowing was inevitable, since the Indian exchequer could not have provided even a tenth part of the contribution from its existing revenue. It should not, however, be overlooked that this large sum implied, as Dr. Marshall recently pointed out in a similar connection, * not a mere transfer of capital from hand to hand or the utilization of wealth that would else have been merely hoarded, but the destruction of an amount of wealth—(albeit it had been converted into war appliances for destroying the enemy and for helping to save India along with the World)—which would otherwise have been available for production and for economic development. The cry that India suffers from a scarcity of capital is familiar to the Indian Economist. And he at least should not be indisposed to recognize that the sacrifice involved in this contribution was much greater than would appear from the mere amount of the gift.

The conclusion of the war must result in the drying up of the sources of income, directly or indirectly due to the war, such as the income from the excess profits duty, which has been estimated to bring in a *net* revenue of over £6 millions during current official year, the increased revenue from the railways due to the war traffic and the income-tax and super-tax derived

* W. H. Dawson's 'After War Problems', p. 314.

from the prosperity of certain trades, which benefited from the war conditions. It would naturally also lead to an expectation of a reduction of the military expenses. Of this, however, we cannot be so sure. Not only in India, but all over the world, strong armaments will have to be maintained, for some years to come, as a guarantee of peace. The cost of demobilization and of the pension charges added by the war will also have to be reckoned in post-war finance. Improved forces for fighting on the land and the air and on and under the sea and the creation of a special Indian Navy are sure to swell the expenditure still further. The changes which the war has brought about in the balance of power in Asia and recent events both in and out of India, make it also doubtful if we can for many years to come reckon upon the reduction of even that part of the total army of India (usually estimated at 30,000 troops) which Mr. Gokhale used to urge the elimination of, on the ground that it was in excess of India's needs and was kept up only for safeguarding British supremacy in Asia. * And, it is not outside the bounds of possibility that even the left wing of the Indian public opinion may be prepared to accept India's liability to provide for this object out of her revenue, if fuller autonomy than is at present in contemplation is granted to her

Any discussion of the incidence of after-war Indian taxation will be incomplete if it did not include a consideration of the probable course of prices, and the value of money in the loan markets to which India will hereafter have recourse. The great rise of prices during the past five years has been due to a variety of complex causes, some of which, like the destruction of appliances of production and of shipping on an unprecedented scale, have had lasting effects. Even the purely monetary causes of the rise cannot be easily or speedily corrected. Any slump in the wages which had risen during the war, and contributed partially to the rise of prices, is not to be expected. Thus, it is safe to assume that though prices will come down somewhat, it is improbable that they will reach the pre-war levels. India will have to pay more for her purchases of commodities and services than before the war. But her losses in this direction will be balanced by the rise in her customs duties, which are raised *ad valorem*, and in the additional revenue accruing under the head of 'Assessed Taxes', on account of the increase in *money income*...

* *Vide* Mr. Gokhale's 'Speeches', pp. 105-107, and his criticism of the views of Sir Edmond Elles and Earl Curzon,

As regards loan-capital, the colossal wastage in the war, and the demands for capital all the world over for recuperation and reconstruction will tend to keep up the rate of interest. Not only will India not have any near chance of any reduction of her annual interest charge, but any capital she may require, hereafter, for her schemes of economic development, will have to be raised in more stringent loan markets than she has hitherto had recourse to.

Two indirect consequences of the war epoch have also to be borne in mind in any forecasting of our after-war finance. These are, first, the increased sense of 'social responsibility' both in the people and in the Government, and secondly, the expansion of the area of responsible government within the country. The spread of political consciousness among the people and constitutional reform generally will tend to make the taxpayer more inquisitive as to why and how he is being taxed and what he gets in return for the sacrifices he undergoes, and to increase the legislative scrutiny of schemes of taxation and of governmental expenditure. The fiscal plans of the future will have to be so devised as to be acceptable to a population whose political consciousness is increasing. In the West, aspirations for social betterment, which had been vivid enough, even before the war, have been quickened and strengthened by the war itself and the community of life it has bred in war work and in the trenches. India, as a whole, has not had this experience directly. But the great moral issues raised by the war are easily translated into terms of social justice, and India must be powerfully influenced thereby in the years to come. The future administrations of India will, therefore, not rest content with mere academic admissions of the State's duty to forward social and economic development by *direct* effort. They will be impelled to include the reclamation of the vast unconquered territory of social and economic reform in the list of their main activities. But 'Social' reform, whether we count it as a necessity or as a luxury, is at any rate expensive. And the synchronousness of such plans of development with the imperative call to raise money therefor by taxation, over and above the pre-war level, will strain largely the patience of the tax-payer and the financial skill and powers of persuasion of our future legislators and ministers. An opportunity also lies temptingly before our academic economists, to wipe out the reproach of sterility often levelled against their class. They might anticipate the dawn of this critical epoch, and might do what they can from now on to obtain popular comprehension of financial plans and financial

difficulties, to suggest schemes for raising the needed revenue with the least hurt and wastefulness, and to create an atmosphere of receptiveness for well-thought out programmes of taxation and State expenditure.

It is difficult to make even an approximately correct forecast of the national revenue that must be raised in the next few years, following the peace. Lord Meston stressed the difficulty in introducing the latest Budget, in which he provided for an anticipated expenditure of 123 millions sterling in 1919-20. The revised estimates of 1918-19 came up to more than 125 millions. A scrutiny of the main elements of these estimates might indicate how far and to what extent the expenditure provided for therein is reducible in future years, and it should afford a basis for reckoning up the *absolute minimum* of our post-war financial requirements. A reference to the appended tabular statement (B) will show how in most directions the expenditure of these years is not abnormal. The increase in Interest charges on the ordinary debt follows naturally on the hundred million gift of 1917. When considered in connection with the increased profits derived therefrom, the increase in Railway expenditure is, if anything, less than one should expect. The figures for Public Works and Irrigation are less than in the first war year, and the year preceding it. The only large increases are under Salaries and Expenses of Civil Departments and Military Charges. The former includes the sums disbursed for development purposes, e.g. the grants to Education, Sanitation, Agriculture and the Scientific departments, and the increase in the general head over and above the 1916-17 figures may to some extent be accounted for by the additions made under some of the sub-heads. It is inevitable that the claims of the Public Services for improved emoluments and pension terms, owing to the rise in the cost of living, will require due attention. The reform of the services, in view of the recommendations of the Public Service Commission, when fully carried out, as well as the pressure of public opinion on the Government to expend more freely on Education, Sanitation, Industrial Development and Agriculture must lead to further and fairly big increases in the allotments made under this head. It has often been urged that the public services in India are on far too costly a scale for the needs of a poor country,* and that the substitution of indigenous for the foreign agency now employed in the higher ranks of the services must conduce to equity, contentment and economy. Apart from the argument

* Lala Lajpat Rai in the *Modern Review*, January, 1916.

that the evil of employing a foreign agency is moral and not merely economic, it is maintainable that the proper criteria of the salaries to be paid are the difficulty of the work to be done, the qualifications of the persons employed, the cost of bringing up fresh supplies of such labour for the normal demands of the services, and the rates of remuneration which alone will ensure a steady supply of qualified recruits. It is therefore manifestly open to objection that any reduction in the remunerations of indigenous employees should be made on racial, sentimental or patriotic grounds, and it is impracticable to count on the possibility of such a discrimination resulting in general satisfaction, administrative harmony and efficiency, or national economy.

Military expenditure, as will be seen from the appended table (B), has usually accounted for about 30 per cent of the total disbursements, and it has kept pace in a remarkable way with the increase in the aggregate expenditure. In 1898-99 it stood at 17.1 millions, in a total expenditure of 56.2 millions. In 1917-18, the last year for which accounts are now available, it went up to 30.7 millions. (Gross expenditure of the year = 104.5 millions). The estimates for 1918-19 and 1919-20 indicate a further steep rise both in the proportion of the total revenue allotted to this head, and in the actual amounts provided, being 45.6 and 42.7 millions, forming 36.2 and 34.9 per cent respectively of the estimated expenses of the years. The military surprises of the war have been many and serious. We have yet little experience of the standards of military efficiency of the future to help us to forecast accurately the military expenditure of the period. One thing, however, is certain. Modern war is very expensive, and the 'toning' up of the Indian Army, and the provision of suitable Air forces and a Naval service must increase, rather than reduce the military charges hereafter. The creation of a great Indian militia, by imparting military training to larger numbers of the Indian population, the recruitment of the rank and file in India, and the diminution of the non-Indian proportion of the forces, might, if ever effected, lead to a perceptible reduction in our future military expenses.* But even in that contingency, the charges for training this great militia must be added to the existing military charges for some years during which the military expenditure will therefore be swollen, not reduced.

Statement C shows how the allotments for social development have risen in recent years. In 1898-99 the aggregate expenditure for this purpose stood at the very low figure of 1.89

* See Mr. Gokhale's 'Speeches', pp. 132-137.

millions. By 1907-8 it rose to 3·2 millions, and in 1914-15 to 5·8 millions. It was somewhat less in the next two years. In 1917-18 it again rose to about six millions, and the budget provision for it in 1918-19 and 1919-20 mounted up to 7·2 and 8·8 millions. Even the latest grant, which is almost five times that twenty-two years ago, works out only at about 8 annas per head of the population. It is only after the famous British budget of 1909,* which proceeded on the open and unqualified acceptance of the position that taxation might and should be used for social regeneration that a change is discernible in the conservative attitude of Indian financiers. In 1911 Sir Edward Law declared that the question of social development was one in which those responsible for the financial situation were bound to take the keenest interest.† Notwithstanding this admission, the Government continued the old policy of doles to Education, Sanitation, Agriculture, etc. The war-epoch changed all this. The enquiries of the Calcutta University Commission and of the Industrial Commission, which were conducted during the course of the war, and the dawn of a feeling of intense social responsibility among the people themselves must lead, to larger and larger expenditure under these heads in the future. The persistent pressure of public opinion will ensure the continuance of this liberal policy.

Two conclusions are, it is submitted, to be drawn from the above examination. First, it would be unwise to assume any amount below £125 millions as the annual expenditure that normally the Indian Finance Minister should budget for hereafter. The amount may be, and very probably, will be largely exceeded, particularly if those who control the destinies of India recognize the wisdom of launching on a course of liberal subvention to industrial and educational development all round. Secondly, there is great and urgent need to review financial resources, to examine the soundness and the strength of those great props on which they depend, and to discover means of strengthening these supports, in order to enable them to withstand the forces of growing expenditure. It has been noticed that every head of expenditure has shown great elasticity and power to expand, year after year the bigger heads, like Civil and Military expenditure, showing this trend even more markedly than the minor. And it follows that financial disaster must be faced soon, unless the sources of the Indian revenue are so selected, assembled and

* See Bernard Mallet, 'British Budgets', p. 299.

† Financial Statement, 1911-12.

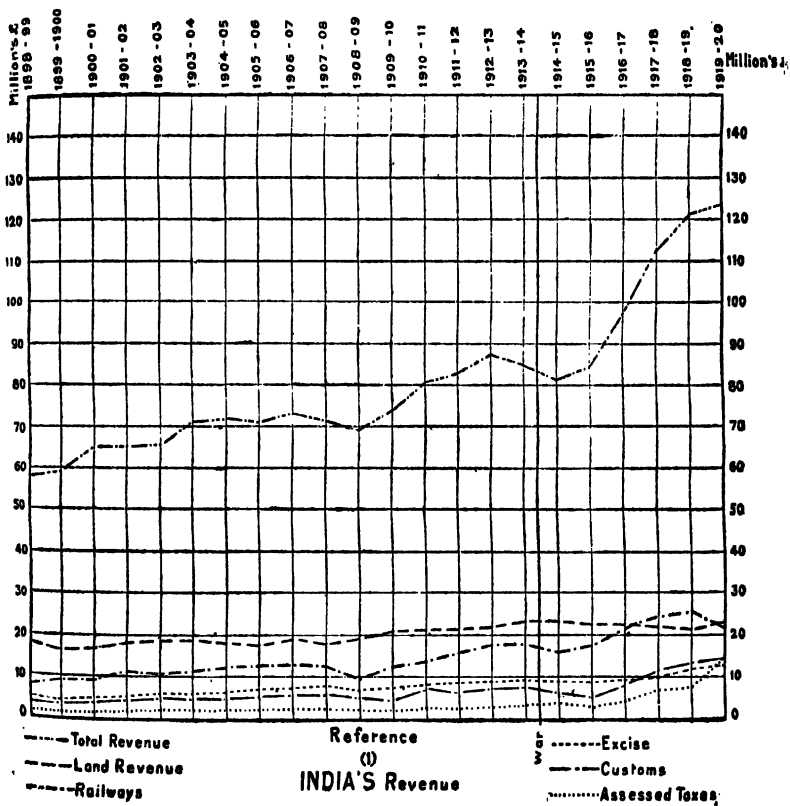
'toned up' as easily to keep up with this continuous expansion of our annual liabilities.

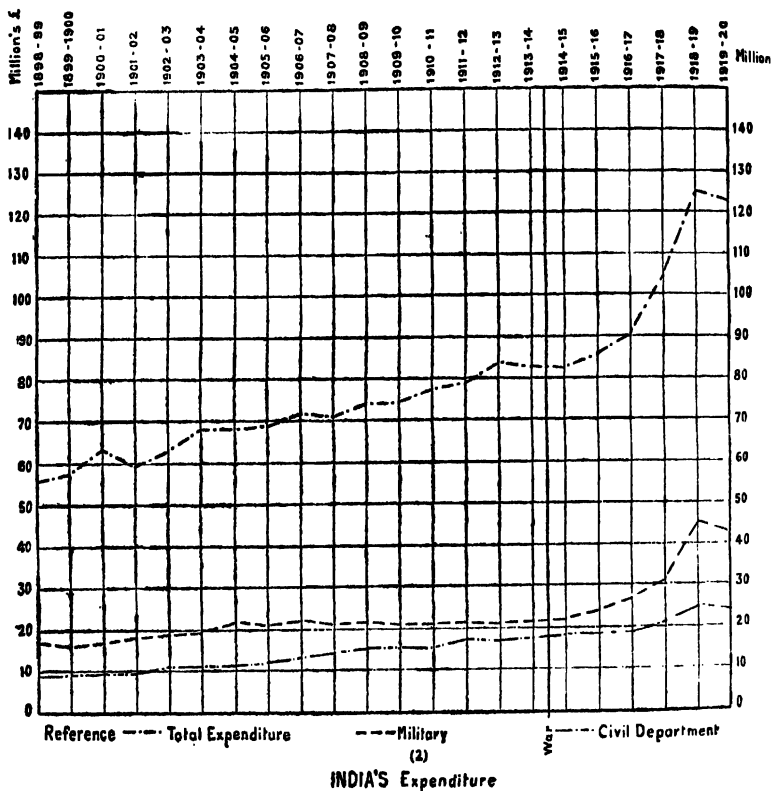
The Indian revenue is derived partly from State properties and commercial undertakings, partly from monopolies, partly from taxation, both direct and indirect, and partly from contributions of a political character. Statement A exhibits the relative strength of each of these heads. One of the weakest among these is represented by the '*Tribute*' from Native States, which being fixed by treaty, has shown practically no elasticity. It has been trifling in amount, having never risen, in the last quarter of a century, to much over one per cent of the total revenue, and having dwindled in the last three years, (through the growth of other items of revenue) to $\cdot 4$ per cent of it. An increase from this source is not to be thought of, as to suggest it might imply the ignoring of solemn engagements, and imperfect appreciation of the magnificent response made by the Native States voluntarily to the appeal of the Empire for help, during the war. Any enhancement of it must also cause hurt to the populations of the Native States, as any additional contribution can only be paid either by an increase in taxation in the Native States or the curtailment of some of the expenses hitherto incurred by them for the benefit of their subjects. The income from the Forests has grown 175 per cent in twenty-two years, and now stands at 3·3 millions. This looks trifling when the extent of the valuable properties is considered. But the conservation of the Forests is undertaken with other aims than the raising of a mere revenue. It has been the tradition of the great service responsible for the working of these valuable estates to develop them to their utmost capacity, and to extract the maximum revenue out of them consistent with their preservation, in unimpaired and progressive efficiency. The total income from this source comes up after all only to about $2\frac{1}{2}$ per cent of the total income, and its elasticity is very small. The income from Registration, the Civil Departments, the Mint, etc., partakes of the same character, only growing slowly with the growth of population. The increasing prosperity of the country is evidenced by the rapid growth of the revenue under Stamps, the Post and the Telegraph, which without any variation from their proportion to the total revenue, have still kept pace with it. The funeral ovation of the 'unholy gain' from Opium was pronounced by Sir Guy Fleetwood Wilson in 1913, * and since then the income from it, and its relative importance as a source of revenue, have

* Financial Statement and Budget, 1913-14.

both dwindled. The increase in the revenue from *Public Works*, and *Interest*, is the normal effect of the additional capital outlay incurred on the former, and, it is out of the question to expect it to be permanent and progressive.

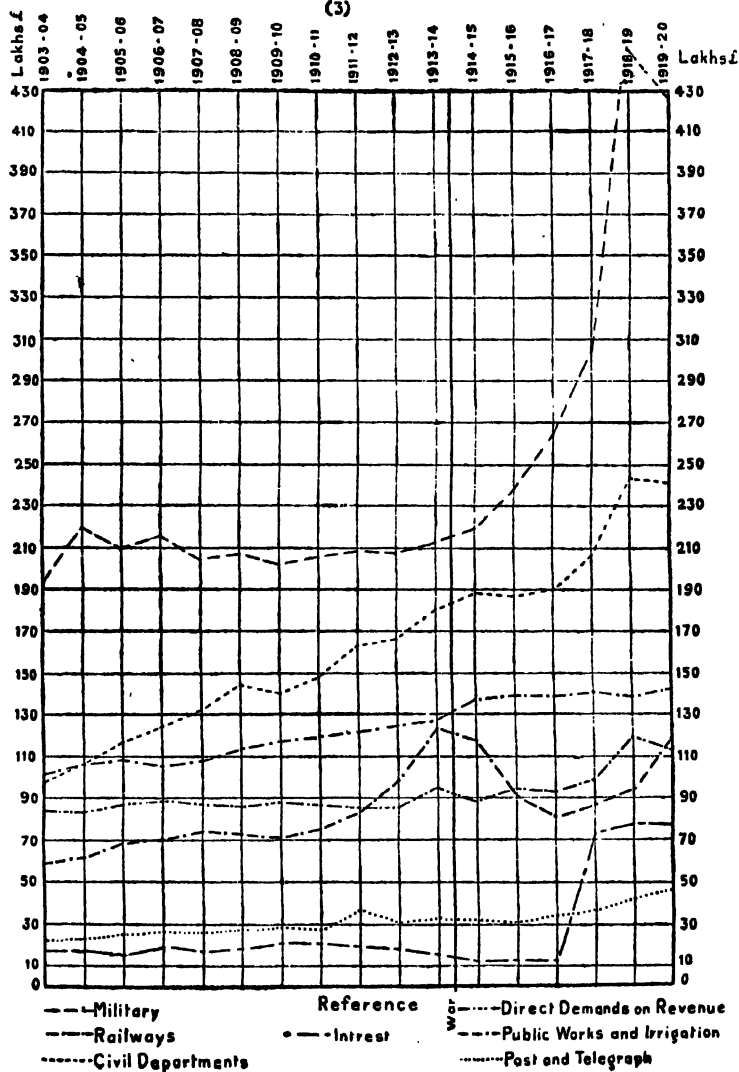
Among the revenue heads that remain, *Railway* receipts have undoubtedly shown great powers of expansion, and that only in recent years. This is natural. We are reaping, as Mr. Gokhale pointed out, the harvest of the epoch in which money was lavished on the Railways, even when they were a losing concern. Part of the recent gains in Railway receipts is also due to the postponement of the yearly renewals and repairs of rolling stock, and part is due to (as already stated) to the carriage of troops and military stores. Nevertheless, it must be admitted that we have in our Railways assets that may be relied on in future years to keep up with the expanding national expenditure. Their nationalization, however, will have to be put off indefinitely. The more or less permanent rise in the rate of interest must render it difficult to carry out, for many years to come, any such plan. The advantages which its advocates have claimed for railway nationalization in India may *all* be conceded, the saving to the State of the share of the profits now paid to private companies, the location of central administration and control in a State department amenable to the influence of Indian opinion, the development of trade on natural lines, the promotion of inter-provincial commerce, and the utilization of the railways in a policy of industrial development. But to realize them, considerable loans will have to be raised. Further expenditure may have also to be incurred in increased annuity payments to railway shareholders. Any money needed for railway purchase will have to be raised at rates of interest the payment of which will effectually wipe out any financial gain that may accrue from the nationalization. In the depleted condition of India's stock of loan capital, it is out of the question to think of raising the amount needed by a loan within the country itself. The competition of Government as a borrower, for this purpose, will prejudice its own chances in the loan market for other purposes, as well as the opportunities of borrowing of our Port Trusts, Municipalities and Local Boards. Lastly, any money raised by public borrowing is more advantageously utilized in furthering either railway expansion in India, where several thousands of miles of railway are still needed, or projects of industrial development, than in schemes for accelerating the natural process by which the existing company-owned lines will also become the property of the Government.





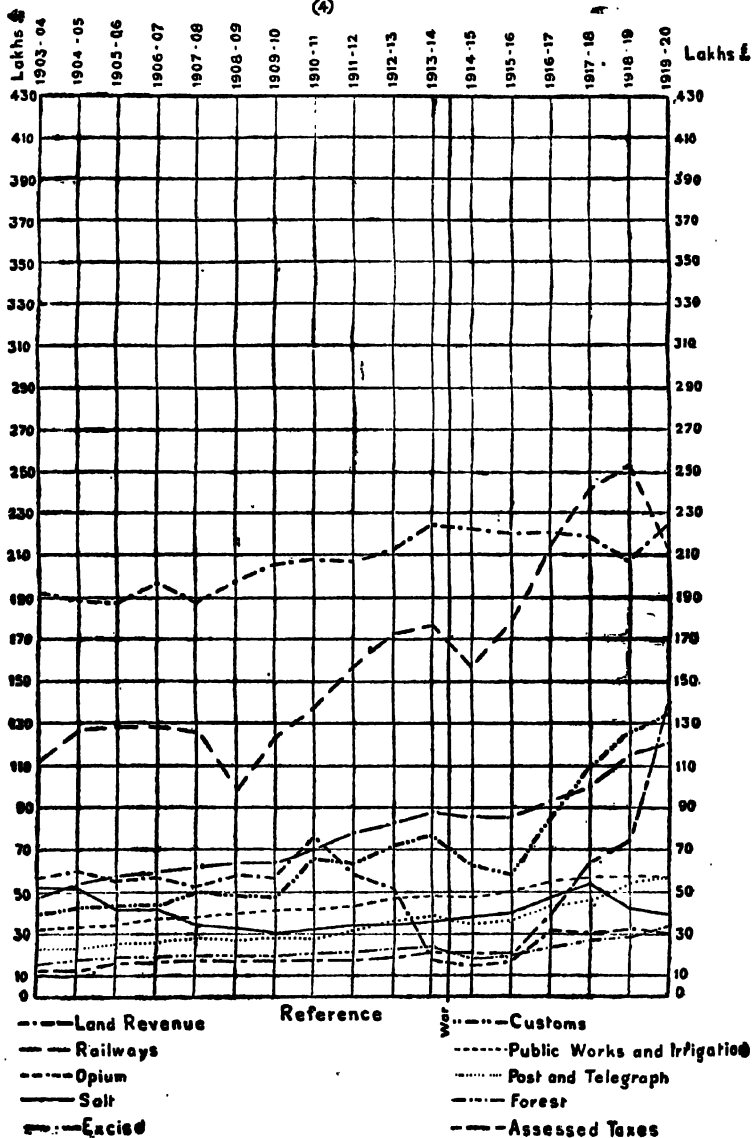
INDIA'S Expenditure Items In £ 100,000

(3)



INDIA'S Revenue Items In £100,000

(4)



Of the heads that Remain, Land Revenue is the most conspicuous. By itself, as a single item of revenue, it surpasses all others. And, historically, it has dominated Indian finance, and consequently, the Indian administrative system. In effect, it is a high tax on agricultural incomes, the permanently settled estates, which come up to a fifth of the total area of cultivated land in the Indian empire, being in the position of tax-payers who have been guaranteed a permanent and unalterable composition-rate in regard to the tax. The income from agriculture is exempted from the income-tax though not from the super-tax. As Sir Thomas Holderness observes, in no country in the world is land expected to do so much as in India.* The land has furnished in the last quarter of a century between 18 and 22 millions annually to the exchequer. It maintains over 80 per cent of the population, and it absorbs more of the time and the attention of the administrative services of India than any other single object. The land tax, however, has shown the least elasticity of any of the sources of Indian revenue, having increased by only 2 per cent in a period of as many years. Relatively to other resources, it has diminished in importance. It was 31 per cent of the total income of India in 1898-99, and is now barely 18 per cent of it. The raising of income from the land has always been beset with difficulties. Dependence on it has made Indian finance 'a gamble in rain'. It has led to the enunciation of theories in regard to the nature of the landed property that are galling to the people, and do not carry conviction to historians as well as economists. Its rates have varied from place to place, sometimes irrespective of taxable capacity. Dependence on it, has led to the maintenance of a discrimination which is felt as eminently unfair, in the existence of permanently settled estates, which contribute nothing directly to the *growing* needs of the Government, side by side with the raiyatwari areas (and their analogues) which have, *in effect*, to pay their own share as well as the shares which the permanently settled areas should have paid to increased revenue that is wanted. And, the intimate connection which it establishes between the administrations and the common people, gives a stronger tinge than is necessary to the natural reluctance of people to bear additional assessments, with every revision of the land-settlement. The area under cultivation—i.e. the area capable of contributing the land-tax, has not shown, as Mr. K. L. Datta urged,† a capacity to increase *pari passu*

* 'Peoples and Problems of India,' p. 140.

† See, chapter VI of his 'Enquiring in to the Rise of Prices in India,' Vol. I.

with the growth of the population. As a source of income, in the after-war epoch, the land tax has to be recognized as singularly inelastic and unsatisfactory. Its retention in its present form, in an epoch of progressive expenditure, will be possible enough but its importance in relation to other fiscal resources will continue to wane, and it will contribute an ever-diminishing percentage of the national revenue.

Of the other items the Salt Tax has had a chequered history, and though the Government has not at any time admitted that it is an unsuitable form of revenue, it has practically conceded the point by agreeing to successive reductions of the rate of Salt-duty, (the effects of which will be seen in Table A), culminating in the reduction to a rupee per maund in 1906. The Government has also shown unwillingness (*vide* Sir William Meyer's Introduction to the Financial of 1917-18, page 19) to have recourse to its enhancement, when other sources were accessible. While its *prima facie* advantages as a tax easily collected, widely distributed, and of great elasticity will always render it one of the financial reserves of the future, recourse will not be had in the first instance to its further increase, owing to the conclusive manner in which it was shown by Sir Edward Baker that its consumption (as a vital necessary of life) showed an increase, *per capita*, when the duty was reduced in 1906. (*Vide* Mr. Gokhale's 'Speeches,' p. 122.)

The Excise and Customs duties have brought in an ever increasing contribution due partly to the economic development of the country, and partly to the revision of the tariff. The experience of the export duty on jute, in which India has a monopoly, might well justify recourse to enhancement of it in the future, should additional revenues be required. On almost the same ground, there would be justification for an enhancement of the tea-duty. The income from these heads may be strengthened by making some of the changes suggested in the course of the criticisms of the new taxation introduced in 1916, and continued since then. The duty on petroleum may be reduced, as it presses on a common necessary of the poor man's life, while that on tobacco may be enhanced. There is no reason why the duty on ale, beer, porter and cider should remain at only $4\frac{1}{2}$ annas per gallon, and not be brought up to the level of 8 annas in England, when the policy has throughout been to equalize the rates in both countries in regard to such articles. And, some accession of revenue may be expected also from imposing export duties on other articles, in which India has a controlling influence, if not actually a producer's monopoly.

The Assessed Taxes (Income-tax, Super-tax and the Excess Profits Duty) accounted for the one source of income which showed the greatest expansibility during the last three years. The tax on non-agricultural incomes which in 1886 took the place of the old licence-taxes and the still older income-tax, exempted only incomes below Rs. 500 per annum. The minimum was raised to Rs. 1,000 by Lord Curzon. During the current year, the taxable minimum has again been raised to Rs. 2,000 on the ground that the people of smaller incomes had been hit hard by the rise of prices due to the war. A loss of half a million sterling was anticipated by Lord Meston as a consequence of this concession, but he showed that the authorities were at the same time relieved from the task of collecting from over 237,000 assesses out of a total of 381,000. The enhanced rates imposed on the larger incomes as well as the Super-tax (1916) have more than made up for this loss. The increases were introduced only as war measures. Apart from the justification to retain them on the ground of social justice, it is certain they *will* be retained permanently in our future budgets, for their own sake and on account of the barrenness of other traditional resources. The Excess Profits Duty (which has been estimated to yield $7\frac{1}{2}$ millions) must go, after a year or two. The rate at which the duty was reckoned (50 per cent of the excess profits to go to the State) raised loud complaints of severity in our country, while in America and elsewhere, economists (*vide* the article by Prof. O. M. W. Sprague in the *Economic Journal* for March 1917) have argued in favour of tax of 95 per cent of the excess income.

The review of our financial resources and obligations has exhibited the inelasticity and narrowness of range of the former, and the expansive and progressive character of the latter. Almost the earliest need in our future budgets will be to make good the loss of the income from the disappearance of the excess profits duty. The inability of our traditional resources to move with equal pace with our expenses has already been noticed. It is inevitable that we should consider both readjustments and improvements in the existing scheme of taxation, and new forms of either obtaining an income or reducing our annual expenditure.

To take the latter first, one way of possibly reducing some part of the civil expenditure is to transform into new Native States (as in the case of the Benares State) the larger Zamin-daries, or permanently settled estates, whose history shows the owners to have been Rajas. At the present time, the larger Zamindar is master of all his surplus rental, and has no charges

to meet for the Government of his possessions. His promotion as a ruling chief will give him fuller responsibilities, and a larger interest in his lands and tenants, and necessitate his finding out of his resources the funds for the Government of his territory. To that extent the cost of administration to the Indian Government will tend to diminish, but the income from certain resources such as excise, stamps, customs and assessed taxes, hitherto collected from the Zamindari will go to the new Raj. It is submitted that the idea may also find justification on such social grounds as the fuller utilization of a landed aristocracy, conscious of the rights, and not always of the obligations of great possessions. The transformation of the great estates should also reduce the area which continue the unfair fiscal discrimination due to the existence of the Permanent Revenue Settlements.

Anticipation of the difficulties of after war finance has already resulted elsewhere in a crop of suggestions and measures of unconventional types of taxation. Holland has imposed a tax on Christian names! Mr. McKenna's proposed customs duty on hats and Dr. Marshall's suggestion of a tax on additional servants have been held by a distinguished living authority to recall similar devices to which Pitt had recourse in the stress of the struggle against Napoleon.* Competent authority has not been wanting to back even the suggestion that the encouragement of the national economy and the curtailment of extravagance require the imposition of additional taxation.† A German economist (Prof. Mombert) has formulated a proposal to tax raw materials with a view to encouraging economy in their use.‡

The high authority of Dr. Marshall is behind the proposal to compel economy in the use of paper by a tax on advertisements,§ which, it is argued, would also result in giving a better chance of attracting attention to the small advertiser than he now has. Dr. Marshall also proposes the taxation of patent medicines and of motor cars. These are in line with other suggestions to tax luxury, the taxation of which has already been commenced in France, Germany and Britain, where it has taken the form of a tax on purchases.|| Jewellery, motor cars and motor boats, antiques, billiard tables, perfumes, live game, liqueurs, works of art, furs, costly musical instruments, fire

* Professor F. Y. Edgeworth's 'Currency and Finance in time of War,' p. 21.

† Professor W. B. Scott in the *Economic Journal*, September, 1918, p. 250.

‡ Professor F. Y. Edgeworth's article on 'Some German Economic Writings about the War' in the *Economic Journal*, June, 1917.

§ 'After War Problems,' p. 325.

See the account by R. Lennard in the *Economic Journal*, September, 1918.

arms, and expensive furniture, are among the items which have been included in the list of articles so taxed. Such taxation has been justified partly as tending to discourage luxury and partly as deriving revenue from those persons whose expenditure shows that they have money to spare. The possibility of evading these taxes, especially on account of the difficulty of their collection from *retail* salesmen, the probability of their being shifted back to the producers and the hurt caused by the unforeseen discrimination which may result from their operation have been urged against much taxes. So far as India is concerned, the lesson to be learned from the short experience of such taxes in Europe is the feasibility of taxing on a repressive scale conspicuous articles of luxury such as race horses, motor cars of high horse-power and speed, costly imported articles of consumption, etc.

Among taxes familiar to the economist, some are manifestly unsuitable to the conditions of India, while others may be adopted with great advantage in our fiscal system. In the absence of a large unproductive debt to be wiped out by so drastic a device, and particularly in view of the comparatively small amount of the accumulated capital of India, a Capital Levy is not required now, and will not be called for in the future also in India, unless another crushing war involving India's direct participation in it, occurs hereafter. The General Property Tax has already been condemned in its American home.* The Increment Value Duty, (borrowed from Frankfort), introduced in Great Britain in 1909 as a tax of 20 per cent on increases in the site value † of land may well be imitated in urban localities in India and made a municipal asset. Only, in fairness, 'decrement' will have to be counted and allowed for in rebates, just as increments are reckoned for taxation.

Persons whose property has clearly been increased in market value by an improvement effected by local authorities might be made liable for a portion of the increased value or to the cost of the improvement. This is the principle underlying the 'Betterment Tax'. Its application in India as a local cess might go far not only to increase the resources of local authorities but their power and willingness to undertake improvements.

A universal Inhabited House Duty, such as Dr. Marshall suggests, ‡ may be levied as an Imperial (and not as a local) tax.

* See Seligman's 'Essays in Taxation', p. 61.

† Mallet's 'British Budgets', pp. 306-7. In England the duty was payable only on each occasion on which the property changed hands, whether by sale or death.

‡ 'After War Problems,' p. 324.

If such duties are payable by occupiers and not the owners of houses, they will be collected cheaply and without evasion. If graduated steeply, as they should be, they will serve the same purpose as a graduated income tax; and the imposition of such a tax might also relieve the pressure of taxation on income.

The main reliance of Indian financiers in the future must however be on the introduction of a universal Inheritance Tax, applicable to personality as well as to real property, and graduated on an economic as well as on a consanguinity-scale. Such a tax will have to be safeguarded by devices calculated to restrict transfers of real property during life, by gift or by collusive sales. And, in order to ensure economy in the expense of its collection, a limit of value might be provided below which inheritances will be free from the tax. Such an impost may be defended on many grounds,* and the experience of western nations is strongly in favour of its introduction in preference to other new taxes, and even to the enhancement of old taxes such as the income tax, (in so far as it relates to moderate incomes), and the salt tax. The principal objections that may be brought against the tax will be two. It may be argued that, if a Hindu, the inheritor is liable to perform the funeral ceremonies of the person from whom he inherits, and to maintain members of the joint family. These liabilities, however, he *always* has by law or custom. Secondly, it may be urged that when landed property is inherited and is made liable to the inheritance tax, there may be difficulty in raising the money necessary for the payment of the tax except at a disproportionately heavy sacrifice, such as is involved in selling the land or in mortgaging it in a dull market. As in the case of similar difficulties suggested by the critics of the Capital Levy, the remedy to this lies in permitting the payment of the tax in convenient instalments spread over a term of years. †

It is next worth seriously considering whether both in view of the defects of the Land-tax, considered as a form of State income, to which attention has already been drawn, as well as the unequal distribution of the tax and the irritation caused thereby, it may not be possible to do away with it altogether and replace it by some form of revenue more suited to modern State requirements, more elastic in character, and more equitable in its general incidence. It has been often stated that the Bengal tenant pays only 11 per cent of his produce to the landlord,

* See the discussion for instance in Seligman's 'Essays in Taxation,' p. 121 et. seq, and G. Cohn's 'Science of Finance', p. 357 and pp. 560-1.

† cf. Edgeworth, 'A Levy on Capital,' p. 15.

while the Gujarat raiyat, who is in the same position pays 20 per cent to the State.* Instances of such inequalities can be quoted in abundance. When the Permanent Settlement was made in Bengal in 1793, the State's share was assumed to be 91 per cent of the total rental of the estates. As the Government's share has been 360 lakhs of rupees, the rental on which the assessment was made was about 400 lakhs. Now the actual rental in Bengal is about 1,600 lakhs.† It is, therefore, clear that, thanks to the continuance of this fiscal measure, an unearned increment of 1,200 lakhs is shared by the Zamindars, tenure holders and tenants in Bengal, while the margin of profit available to the ordinary raiyat in other parts of India is being further and further encroached on by re-settlements. Practically the entire increase in Bengal is due to the rise of prices, and the development of the province generally. What has been said of Bengal may be said, with nearly the same force, of the area under Permanent Settlement in other parts of India. About a fifth of the taxed land area of India is now permanently exempted from *any* increase in the land-tax, under all circumstances. The injustice has been recognized but not the means of correcting it. The revocation of the engagements made in 1793 and the years following has indeed been suggested. It may not commend itself to the conscience of a nation, which embarked on the most ruinous war in history, to maintain the inviolability of 'a scrap of paper'. Nor will the extension of the principle of Permanent Settlement of the land revenue to all India rectify the inequalities in distribution due to the discrimination of a hundred and twenty years. Such a measure, if carried out, might only accentuate the defects of the Land-tax—its inelasticity and its inadequacy—which have made it an unideal source of public income, for a country with a progressive expenditure. Logically, the only satisfactory course appears to be the abolition of the Land-tax altogether, and the substitution of a *universal* Income-tax levied on *all* incomes, and graduated in amount according to the source, the character and the amount of the income. Such a measure may be less objected to than either of the methods for dealing with the Permanent Settlement that have been proposed. It would appeal to the popular mind as an 'emancipation of the land,' and the freedom from frequent and vexatious interference of land-revenue officials, and the disappear-

* R. C. Dutt, 'India in the Victorian Age,' p. 515.

† S. C. Ray, 'The Permanent Settlement in Bengal', pp. 20-21; and Sir John Strachey's 'India', pp. 416-422.

ance of all fear of having improvements taxed, must sensibly affect the improvement of the land—for the better.

On the other hand, the trend of modern economic opinion is strongly in favour of a graduated tax on personal expenditure, as an ideal. And, 'an Income-tax graduated in amount and on the number of people to be supported by it would achieve', it has been contended by high authority,* 'the apparently impossible task'. The Income-tax is unquestionably the most elastic form of revenue available to the modern financier, by the aid of which it is always possible to balance a budget. It is this merit that has made what was intended at first to be only a temporary measure (even on its revival by Sir Robert Peel in England, in 1842) a permanent and conspicuous item of national finance.† Its technical superiority to the Land-tax is unquestionable. Discrimination in its rates between temporary and permanent incomes, and between earned and unearned incomes will enable it to be easily substituted for the Land-tax. The great experience which has already been acquired by our revenue officials in its assessment and collection can be successfully utilized when its scope is extended. And the release from the work of the assessment and collection of the Land-tax will enable the revenue department to devote more attention to the income-tax than it is now able to bestow, and it will be possible to consider even the large number of minor assessees, whose exemption from the Income-tax has hitherto been due partially at least to the reluctance of the department to undergo the trouble for the small return expected.

The opportunity of the substitution may be utilized to introduce in the Income-tax, which along with the Inheritance tax, and the indirect taxes will become the chief prop of our future fisc, the various improvements suggested by economic theory and administrative experience. Collection at the source and the grant of abatements to the poorer assessees will reduce chances of evasion. The angularities of mere graduation, against which J. S. Mill, protested so long ago as in 1861, ‡ may be avoided in framing its scales. The suggestion of Professor Cassell of Stockholm § which, with reserve in minor respects, has been

* Dr. Marshall.

† Sir Stafford Northcote's 'Twenty years of Financial Policy,' pp. 33-37 *et seq*; Sidney Buxton, 'Finance and Politics', I, 55, II, 165-170, and Mallet's 'British Budgets,' *passim*.

‡ 'Political Economy', Bk. V, Ch. ii, § 3, and his evidence before the Select Committee on the Income Tax, 1861, On 3540.

§ Edgeworth's 'Lectures on Capital', pp. 25-26.

obtaining increasing academic economic support, that the tax-basis should be not the income, but the income less an abatement (the maximum limit of which will be fixed) for conventional necessities, should* be carried out in the revision, and should replace the present system of arbitrary exemption of *all* incomes below a limit, and of the taxation of all incomes above it, irrespective of real taxable capacity. In the formulation of the scales of graduation, the principle of equi-proportional sacrifice,* suggested by such experts as the late Dr. N. G. Pierson and Professor Seligman and generally accepted by modern economists, should be enforced. The reform of the tax will increase its productivity and reduce its defects—two merits of value, when the natural unpopularity that would attach to the extension of the tax to incomes, which it did not touch till then, is considered.

The supreme fitness to Indian conditions of a universal Income-tax, that would embrace every income and vary with the size of the family, has been already recognized by acute administrators. It is the cardinal suggestion of Major J. C. Jack's brilliant study of the economic life of Bengal. As he contends, † such a tax will have two supreme fiscal merits—certainty and elasticity. It will in addition have political merit of showing the taxable capacity of the country accurately and clearly. It will enable the Indian administrator to compile the data he most needs now, namely, accurate information concerning the economic condition of the people. The experience required to administer the tax is already in existence in the country, and it is unlikely that the proposed substitution will either increase the pressure on our present revenue officials, or necessitate any recourse to additional expenditure.

Conservatism is the tradition not merely of Indian life but of Indian finance. It cannot be expected that the suggestions now considered will ever be carried, till resistance has been offered to their effectuation, on every possible ground. It will be urged that the Land-tax is an old tax, and that 'an old tax is no tax'; that the imposition of an 'odious' direct tax like the Income-tax will cause grave popular discontent; that the extension of the Income-tax even to the incomes now free of it, will be felt as burdensome; that the vast experience of the body of existing land-revenue officials will be 'scrapped' and that the fear of the application of the reforming shears to the land revenue establishment will provoke keen official discontent; and that, in

* Edgeworth's 'Currency and Finance', p. 22 and pp. 46-47.

† 'Economic Life of a Bengal District', pp. 136-137.

a country of hide-bound traditions like India, it is unwise to give up a source of state income hallowed by centuries of acceptance, in favour of an imported financial novelty from the West. It is obviously not difficult to answer such objections. The 'old tax' adage refers to taxes on commodities, and not to new as compared with old *direct* taxes. The Land-tax is not less a direct tax than the Income-tax, and the collection of the former has been attended with more friction than the latter. No tax is popular, and even the Liberal party in England which once made it a special war-cry to denounce the Income-tax, has now adopted it as a permanent and distinctive feature of its budget-programmes. Purely indigenous finance (Hindu or Musalman) has regarded it as just to impose State burdens on the poor as much as on the rich. The application of Professor Cassell's principle must cut the ground from under those who might argue that the extension of the Income-tax to all incomes, must trench on the means of subsistence. Far from there being any need to relegate to the rubbish-heap the acquired experience of our great revenue service, such experience will prove invaluable in the assessment and collection of the new tax; and, contrary to natural expectation, it is practically certain that the full existing complement of the service will be required to assess and collect the new revenue. Arguments based on assumed Indian conservatism and the appeal to hallowed traditions may be pressed *too* far, but they can hardly be brought forward by those conversant with the history of Indian finance, and the innumerable fiscal measures and expedients of Hindu and Musalman times, which it has been the merit of modern administrations to sweep away.

The success of administrative policies, however, is not always in proportion to their soundness. Financial reform is never easy, and the difficulties in the way of its acceptance are only likely to be increased, when it is coupled with the aim of raising an enhanced revenue. The elimination of the Land-tax from our fiscal system, and the establishment of a universal Income-tax, constructed on the most approved lines, are individually tasks from which the strongest Governments might quail. But the problem has to be faced. For if the India of the future is to be a more prosperous India than that of to-day and of yesterday, it is vital that it should possess a sound and progressive financial system, which will not stint the necessary expenditure required for schemes of development and social regeneration, on the ground that it would necessitate recourse to additional taxation or even drastic fiscal rearrangements. The suggestions now put

forward are made not only in the belief that they are essential to the attainment of this ideal, but with the confidence that their acceptance by a body of Indian economists will ensure such attainment.

*Statement A.—Revenue of the Government of India in India
individual items of the*

	1898-99	1899-00	1900-01	1901-02	1902-03	1903-04	1904-05	1905-06	1906-07
Land Revenue ..	18.2	17.1	17.4	18.2	18.4	19.2	18.9	18.8	19.7
Do. in proportion to total Revenue %	30.9	28.7	26.8	28.1	28.2	27.1	26.5	26.5	26.7
Opium ..	3.8	4.4	5.1	4.8	4.4	5.7	6.0	5.4	5.6
Do. in proportion to total Revenue %	6.4	7.4	7.9	7.4	6.7	8.0	8.4	7.6	7.6
Salt ..	6.0	5.8	5.9	5.9	6.1	5.2	5.3	4.3	4.3
Do. in proportion to total Revenue %	10.0	9.7	9.1	9.1	9.3	7.3	7.4	6.0	5.9
Stamps ..	3.1	3.2	3.3	3.4	3.4	3.5	3.7	3.9	4.0
Do. in proportion to total Revenue %	5.0	5.3	5.1	5.1	5.2	5.9	5.2	5.5	5.3
Excise ..	3.8	3.8	3.9	4.0	4.4	4.9	5.3	5.6	5.8
Do. in proportion to total Revenue %	6.4	6.5	6.0	6.1	6.7	6.9	7.4	7.9	7.9
Customs ..	3.2	3.1	3.3	3.8	3.9	3.9	4.3	4.3	4.3
Do. in proportion to total Revenue %	5.0	5.2	5.1	5.8	5.9	5.5	6.0	6.0	5.9
Provincial Rates ..	.9	.9	.9	1.0	1.0	1.0	1.0	.9	.5
Do. in proportion to total Revenue %	1.5	1.5	1.3	1.5	1.5	1.4	1.4	1.2	.6
Assessed Taxes ..	1.2	1.3	1.3	1.3	1.4	1.2	1.2	1.3	1.4
Do. in proportion to total Revenue %	2.0	2.0	2.0	2.0	2.1	1.6	1.6	1.8	1.9
Forest ..	1.2	1.2	1.2	1.1	1.2	1.4	1.6	1.7	1.7
Do. in proportion to total Revenue %	2.0	2.0	1.9	1.8	1.9	1.9	2.2	2.4	2.3
Registration ..	.2	.2	.3	.3	.3	.3	.3	.3	.3
Do. in proportion to total Revenue %	.3	.3	.4	.4	.4	.4	.4	.4	.4
Tributes from Native States	.6	.6	.5	.5	.6	.6	.6	.5	.6
Tributes from Native States in proportion to total Revenue %	1.02	1.01	.7	.7	.9	.8	.8	.7	.8
Interest ..	.6	.5	.6	.7	.8	.8	.8	.9	.9
Do. in proportion to total Revenue %	1.02	.8	.9	1.08	1.2	1.1	1.1	1.2	1.2
Post and Telegraphs ..	1.9	2.1	2.1	2.2	2.2	2.3	2.3	2.5	2.6
Do. in proportion to total Revenue %	3.2	3.5	3.2	3.4	3.3	3.2	3.2	3.5	3.5
Mint ..	.05	.3	3.1	.5	.4	2.8	.2	.3	.4
Do. in proportion to total Revenue %	.08	.5	4.7	.7	.6	3.9	.2	.4	.5
Receipts by Civil Department	.9	.9	1.0	1.0	1.0	1.0	1.0	1.1	1.1
Receipts by Civil Department in proportion to total Revenue %	1.5	1.5	1.5	1.5	1.5	1.4	1.4	1.5	1.5
Miscellaneous ..	.6	.5	.4	.5	.5	.6	.6	.6	.9
Do. in proportion to total Revenue %	1.02	.8	.6	.7	.7	.8	.8	.8	1.2
Railways Net Receipts ..	8.5	9.4	9.8	10.7	10.2	11.1	12.7	12.9	12.9
Do. in proportion to total Revenue %	14.0	15.8	15.1	16.5	15.6	15.6	17.8	17.6	17.6

and in England in £ Millions, indicating proportion of
revenue to the total revenue

1907-08	1908-09	1909-10	1910-11	1911-12	1912-13	1913-14	1914-15	1915-16	1916-17	1917-18	1918-19	1919-20
18.7	19.7	21.3	20.8	20.7	21.2	22.3	22.2	22.0	22.0	21.6	20.9	22.6
26.3	28.5	30.2	25.8	25.1	24.4	26.1	27.3	26.1	22.1	19.0	17.2	18.0
5.2	5.8	5.5	7.5	5.9	5.1	1.6	1.5	1.9	3.1	3.0	3.2	3.0
7.3	8.3	7.5	9.3	7.1	5.8	1.9	1.8	2.2	3.1	2.6	2.6	2.0
3.3	3.2	3.0	3.1	3.3	3.3	3.4	3.9	3.6	4.8	5.4	4.1	3.9
4.6	4.5	4.0	3.8	3.9	3.8	3.9	4.8	4.2	4.8	4.7	3.8	3.1
4.2	4.3	4.5	4.8	4.8	5.0	5.3	5.0	5.4	5.7	5.7	5.8	6.0
5.9	6.1	6.04	5.9	5.7	5.7	6.2	6.1	6.3	5.8	5.06	4.7	4.9
6.22	6.3	6.53	7.0	7.6	8.2	8.8	8.5	8.6	9.2	10.1	11.5	12.1
8.7	9.0	8.7	8.6	9.1	9.4	10.3	10.4	10.1	9.3	8.9	9.4	9.8
5.06	4.8	4.96	6.6	6.4	7.1	7.5	6.3	5.8	8.6	11.0	12.6	13.3
7.0	6.7	6.5	8.1	7.7	8.1	8.8	7.7	6.8	8.7	9.7	10.3	10.8
.52	.5	.53	.55	.55	.55	.18	.03	.04	.03	.028	.029	.034
.7	.7	.6	.6	.6	.5	.1	.03	.04	.03	.01	.01	.02
1.5	1.5	1.54	1.59	1.59	1.74	1.95	2.03	2.09	3.77	6.3	7.3	13.5
2.1	2.1	2.01	1.82	1.8	1.9	2.2	2.4	2.3	3.7	5.5	6.0	10.9
1.7	1.7	1.73	1.82	1.8	2.15	2.22	1.98	2.07	2.47	2.73	2.9	3.35
2.3	2.4	2.2	2.2	2.1	2.4	2.5	2.3	2.3	2.4	2.3	2.3	2.6
.4	.4	.43	.4	.4	.48	.51	.18	.51	.54	.52	.55	.56
.5	.5	.5	.4	.4	.4	.5	.5	.5	.5	.4	.4	.4
.5	.58	.58	.6	.6	.62	.61	.6	.6	.61	.59	.60	.61
.7	.7	.6	.7	.7	.6	.7	.7	.7	.6	.4	.4	.4
.9	.9	1.18	1.46	1.4	1.4	1.3	1.0	1.0	1.1	2.1	4.0	3.6
1.2	1.2	1.4	1.7	1.6	1.6	1.5	1.2	1.1	1.1	1.8	3.2	2.9
2.8	2.7	1.92P	2.8	3.1	3.3	3.5	3.5	3.7	4.1	4.6	5.3	5.7
3.9	3.8	.90T 3.7	3.4	3.7	3.8	4.0	4.3	4.3	4.1	4.0	4.3	4.6
.4	.1	.12	.19	.3	.4	.3	.06	.1	.6	.5	1.7	1.3
.5	.1	.13	.1	.3	.4	.3	.07	.1	.6	.4	1.3	1.05
1.0	1.1	1.14	1.2	1.2	1.3	1.4	1.5	1.5	1.7	1.9	2.0	1.9
1.4	1.5	1.4	1.4	1.4	1.4	1.6	1.8	1.7	1.7	1.6	1.6	1.5
	.5	.7	.67	.8	.7	.7	.6	.6	.8	4.8	5.7	2.5
	.7	.9	.7	.9	.8	.8	.7	.7	.8	4.2	4.6	2.03
12.4	9.899	12.44	13.8	15.8	17.3	17.6	15.7	17.9	21.3	24.1	25.8	21.9
17.4	14.05	16.6	17.1	19.08	19.9	20.6	19.3	21.2	21.7	21.4	20.8	17.2

*Statement A.—Revenue of the Government of India in India
individual items of the revenue*

	1898-99	1899-00	1900-01	1901-02	1902-03	1903-04	1904-05	1905-06	1906-07
Public Works and Irrigation	2.5	2.5	2.7	2.7	2.9	3.1	3.2	3.2	3.75
Public Works and Irrigation in proportion to total Revenue %	4.2	4.2	4.1	4.1	4.4	4.3	4.4	4.5	5.06
Military Receipts ..	.6	.7	.8	1.0	1.2	1.3	1.2	1.3	1.4
Do. in proportion to total Revenue %	1.02	1.1	1.2	1.5	1.8	1.8	1.6	1.8	1.9
Total Revenue ..	58.8	59.4	64.7	64.6	65.2	70.9	71.1	70.8	73.1
Deficit ..	..	..	..	..	..	..	..	..	..
Total ..	58.8	59.4	64.7	64.6	65.2	70.9	71.1	70.8	73.1

and in England in £ Millions, indicating proportion of
to the total revenue—contd.

1907-08	1908-09	909	910	911	2-13		1914	1915	1916		918	20
3.6	3.7	3.8	3.8	4.2	4.7	4.9	4.8	5.0	5.4	5.3	5.7	5.7
5.07	5.3	5.1	4.7	5.07	5.4	5.7	5.9	5.9	5.5	4.7	4.6	4.6
1.1	1.0	1.13	1.2	1.3	1.3	1.3	1.3	1.2	1.5	1.7	1.7	1.5
1.5	1.0	1.4	1.4	1.5	1.4	1.5	1.6	1.4	1.5	1.5	1.3	1.2
71.0	69.7	74.59	80.68	82.8	86.8	85.2	81.1	84.4	98.05	112.6	121.5	123.19
..	..	..	..	..	..	..	7.7	1.1	..	..	4.3	
71.0	69.7	74.59	80.68	82.8	86.8	85.2	88.9	85.5	98.05	112.6	125.8	123.19

*Statement B.—Expenditure of the Government of India in India
individual items of expenditure*

Heads of Expenditure	1897-98	1898-99	1899-00	1900-01	1901-02	1902-03	1903-04	1904-05	1905-06	1906-07
Direct demands on the Revenue £ M.	7.0	7.3	7.5	7.3	7.5	8.5	8.5	8.5	8.7	8.9
Do. in proportion to total Expenditure %	12.45	12.8	11.9	12.2	12.05	12.5	12.5	12.5	12.6	12.4
Interest £ M. ..	2.0	1.9	2.1	1.9	1.8	1.6	1.6	1.6	1.4	1.9
Do. in proportion to total Expenditure %	3.5	3.3	3.3	3.2	2.8	2.3	2.3	2.3	2.03	2.6
Post and Telegraphs £ M.	1.7	1.8	1.8	2.1	2.2	2.2	2.3	2.3	2.5	2.7
Do. in proportion to total Expenditure %	3.02	3.1	2.8	3.5	3.5	3.2	3.5	3.5	3.6	3.7
Mint £ M. ..	.07	.05	3.1	.5	.4	2.7	.1	.12	.16	
Do. in proportion to total Expenditure %	.1	.09	1.9	.8	.6	3.9	.1	.1	.1	
Salaries Expenditure of Civil Departments £ M.	9.2	9.3	9.5	9.6	10.21	10.22	10.61	11.6	12.6	
Do. in proportion to total Expenditure %	16.7	16.4	15.07	16.1	16.3	15.02	15.6	16.8	17.6	
Miscellaneous Civil Charges £ M.	3.8	4.0	4.0	4.1	4.6	4.4	4.3	4.4	4.5	
Do. in proportion to total Expenditure %	6.7	7.0	6.3	6.8	7.3	6.5	6.3	6.4	6.2	
Famine Relief and Insurance £ M.	.7	2.0	4.1	.8	.9	.9	1.0	1.0	1.0	
Do. in proportion to total Expenditure %	1.2	3.5	6.5	1.5	1.4	1.3	1.4	1.4	1.3	
Railways £ M. ..	9.1	9.3	9.5	9.8	10.0	10.3	10.6	10.9	10.6	
Do. in proportion to total Expenditure %	16.1	16.4	15.07	16.4	16.07	15.1	15.6	15.8	14.8	
Public Works and Irrigation £ M.	4.2	4.5	4.5	4.8	5.5	6.0	6.2	6.9	7.0	
Do. in proportion to total Expenditure %	7.4	7.9	7.1	8.05	8.8	8.8	9.1	10.04	9.7	
Military Service £ M. ..	17.1	16.1	16.3	17.2	18.8	19.5	21.9	21.0	21.5	
Do. in proportion to total Expenditure %	30.4	28.3	25.8	28.6	30.2	27.2	32.3	30.5	30.07	
Total Expenditure, Imperial and Provisional	55.3	56.8	62.9	58.6	62.4	66.8	67.4	68.9	71.2	
Provincial Sur- (Add. plus or Deficit. (Subt.	..	..	..	..	..	..	..	..	..	..
	.9	.1	.1	.9	.1	1.1	.1	.2	.4	.18
Total Expenditure Charged to Revenue.	56.2	56.7	63.0	59.6	62.2	67.9	67.6	68.7	71.5	
Surplus ..	..	..	..	..	..	..	..	..	..
Total ..	56.2	56.7	63.0	59.6	62.2	67.9	67.6	68.7	71.5	

*and in English in £ Millions, indicating proportion of
to the total expenditure*

1907-08	1908-09	1909-10	1910-11	1911-12	1912-13	1913-14	1914-15	1915-16	1916-17	1917-18	1918-19	1919-20
8.8	8.7	8.85	8.8	8.67	8.65	9.27	8.9	9.4	9.3	9.8	11.67	11.29
12.4	11.8	11.9	11.4	10.8	10.2	11.1	10.7	10.9	10.2	9.3	9.2	9.1
1.8	1.9	2.11	2.1	2.0	1.8	1.5	1.19	1.19	1.17	7.3	7.73	7.76
2.5	2.5	2.8	2.7	2.5	2.1	1.8	1.3	1.2	1.2	6.9	6.1	6.3
2.7	2.8	1.92P 99T	2.8	3.09	3.1	3.2	3.2	3.1	3.4	3.6	4.1	4.58
3.8	3.8	3.7	3.6	3.8	3.7	3.8	3.8	3.6	3.7	3.4	3.2	3.6
.16	.19	.14	.09	.1	.1	.1	.1	.08	.16	.16	.26	.28
.1	.13	.13	.11	.12	.12	.12	.12	.09	.11	.09	15	.16
13.09	14.48	14.18	14.9	16.4	16.68	17.9	18.9	18.8	19.0	20.8	24.4	24.3
18.4	19.4	19.03	19.5	20.7	19.8	21.6	22.7	21.9	20.9	19.9	19.3	19.8
4.7	4.9	4.8	4.8	4.8	4.9	5.4	5.3	5.1	5.4	5.9	6.1	6.1
6.6	6.6	6.4	6.2	6.08	5.8	6.5	6.3	5.9	5.9	5.6	4.8	4.9
1.2	1.6	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.5
1.6	2.1	1.3	1.3	1.2	1.1	1.2	1.2	1.1	1.1	.9	.8	1.2
10.9	11.2	11.6	11.8	12.1	12.56	12.8	13.6	13.9	13.8	14.2	14.15	14.46
15.4	15.2	15.6	15.3	15.2	14.9	15.4	16.4	16.2	15.2	13.5	11.2	11.8
7.4	7.3	7.1	7.6	8.5	9.3	10.5	10.8	9.1	8.1	8.7	9.4	10.7
10.4	9.9	9.6	9.9	10.7	11.1	12.6	13.02	10.6	8.9	8.3	7.4	8.7
20.4	20.6	20.24	20.48	20.9	20.9	21.2	21.8	23.5	26.5	30.7	45.6	42.78
28.8	28.06	27.3	26.5	26.4	24.9	25.6	26.2	27.4	29.2	29.3	36.2	34.9
71.7	74.1	73.09	74.7	77.9	79.2	83.17	85.1	85.4	88.17	102.5	124.77	123.96
..	.2	.89	1.96	1.4	4.5	.3	..	.3	2.39	2.2	1.16	.01
1.0	.8	..	..	.4	..	.6	2.19	.2	..	.1	.09	1.65
70.6	73.4	73.98	76.7	78.9	83.7	82.89	82.9	85.6	90.57	104.5	125.8	122.3
..	..	.60	3.9	3.9	3.1	2.3	..	..	7.4	8.08	..	.8
70.6	73.4	74.59	80.68	82.83	86.86	85.2	82.9	85.6	98.05	112.6	125.8	123.19

Statement C.—Expenditure of the Government of

Heads	1898-99	1899-00	1900-01	1901-02	1902-03	1903-04	1904-05	1905-06	1906-07
Education ..	·67	·68	·68	·71	·83	·87	·98	1·22	1·84
Medical and Sanitation ..	·82	·70	·71	·60	·71	·68	·70	·76	·81
Scientific Departments including Agriculture.	·84	·85	·44	·47	·47	·51	·50	·50	·69
Total ..	1·89	1·73	1·83	1·78	2·01	2·06	2·18	2·48	2·84
Total Revenue of the year.	58·8	59·4	64·7	64·6	65·2	70·9	71·9	70·8	73·1

India on Heads of Development (in Millions £)

1907-08	1908-09	1909-10	1910-11	1911-12	1912-13	1913-14	1914-15	1915-16	1916-17	1917-18	1918-19	1919-20
1.48	1.68	..	..	..	..	3.17	3.30	3.11	3.13	3.33	3.97	4.88
.85	1.01	..	..	..	..	1.33	1.51	1.49	1.38	1.56	1.76	2.28
.77	.53	..	..	..	..	1.00	1.02	1.02	1.04	1.21	1.49	1.66
3.16	3.22	..	..	..	..	5.50	5.83	5.62	5.55	6.16	7.22	8.82
71.0	69.7	74.5	80.6	82.8	86.8	85.2	81.1	84.4	28.0	112.6	121.5	125.1

Land Revenue and Provincial Finance

BY E. V. SUNDARA REDDI, M.A., B.L.

Land Revenue is responsible for nearly 55 per cent of the total revenues of this province and the revenue derived from excise for nearly 30 per cent. Together they are responsible for 85 per cent. Land Revenue can therefore be said to be the mainstay of the provincial finance. Two-thirds of the land in this Presidency are held under the ryotwari tenure and the assessment together with the cesses amounts to nearly Rs. 700 lakhs. The rest of the land which is held under the Zamindari tenure contributes only Rs. 50 lakhs (exclusive of cesses) to the Exchequer under the system of permanent settlement. The number of pattas held under the ryotwari tenure is 4,222,543 and these are scattered in 22,321 villages. Of the total number of pattas in 1915-1916 more than two-thirds were assessed at Rs. 10 and less, and the average area of a patta paying Rs. 10 and less was 2.6 acres and the average assessment Rs. 3-3-0, as the bulk of the lands comprised in these petty holdings were dry. There were only 3,798 pattadars paying Rs. 500 and above, and gross assessment paid by these amounted to Rs. 33,80,173. From the above figures it will be readily seen that a majority of the landholders in this Presidency are small raiyats and they will hardly be in a position to raise enough for their own consumption.

Under the system of recurring settlement in this Presidency, the revenues of this province have been steadily growing up and the rate of annual increase is ten or twelve lakhs. The result of this policy has been to compel Madras to contribute a disproportionate share to the Imperial burdens. The new constitution has provided for the development of autonomous provinces. The sources of revenue have been separated and classified as Imperial and Provincial. Land Revenue is a provincial head and the other important heads of provincial revenue are excise, stamps (Court-fees) and irrigation. Powers of taxation and borrowing have been conceded. It is therefore a matter of great impor-

tance for us to consider what possibilities there are of readjusting the basis of our fiscal system and of finding new sources of revenue to meet the increased expenditure which the introduction of a Responsible Government, the initiation of large policies for developing the resources of the province and the promotion of the well-being of its people will necessarily entail.

Land Revenue and excise are the two important heads of provincial revenue. There is considerable discontent among the people with regard to the working of the present land revenue policy, and need for an alteration in the policy and a re-adjustment of burdens so that they may fall more equitably on the smaller landholders whose incomes are barely sufficient to enable them to live in comfort and ease. Equally dissatisfied is a small but intelligent section of the people in this Presidency with the excise policy of the Government. A movement for total prohibition is slowly growing up and in the course of years the force of it will be strongly felt and found almost irresistible. A certain amount of sacrifice of revenue will result and this must be cheerfully borne and met by new sources being tapped to recoup the loss in this direction.

The question of excise only points to the real difficulty to a satisfactory solution of the land revenue problem in this Presidency.

The standard of life among the raiyats is very low and the wages of agricultural labourers has not sufficiently risen, as its level is controlled to some extent by the land revenue policy of the Government. There is one aspect of the present policy which causes serious concern to the officials as well as the raiyats. It is the absence of any differential treatment between the incomes of the smaller and the larger landholders and of any graduated scale of assessment which will be more in conformity with the modern canons of taxation. An equitable distribution of the burden as between the landholders and the different communities in the State is a matter of extreme urgency.

Two aspects of the land problem may be referred to in passing. First, if the State is regarded as the owner of the land, then the right of the State to the full economic rent from the land must be admitted. If the Government levies this rent, the result will be, we are told, that many of the poorer landholders who are unable to maintain themselves will obtain sensible relief. The real difficulty is that the benefits likely to arise from the adoption of the principle of State ownership of land are of extremely doubtful character. The concentration of land in the hands of a few, which has always served as the strongest reason for advocating a policy of nationalization of land in other countries, is

fortunately absent here, as may be judged from the figures given in the early portion of this paper. Besides there is no reason to think that the State as landlord will be an exception in any way to the grabbing tendency of landlords in general, and our experiences under the present system are not very fortunate. The absorption of the whole of the economic rent by the State can only be advocated on one condition—a willing preparedness to completely obliterate our individuality. Our faith in the wisdom and the capacity of the State is not so great as to persuade us to adopt this very doubtful course, even if it were possible. Secondly, the proposal which found favour with some, that the land revenue should be fixed as a proportion of the gross produce, has been rightly rejected as hopelessly unsound and unsuited to the present conditions and it is not necessary for us to consider at this time the objections to such a policy.

We are deeply grateful to the Joint Committee for the recommendation which they have made in connection with the land revenue question. They have expressed the opinion that the time has come to embody in law the main principles by which the land revenue is determined, the methods of valuation, the pitch of assessment, the period of revision, the graduation of enhancement and the other processes which touch the well-being of the revenue payers. The opportunity thus afforded may be availed of by the provincial legislatures to thoroughly examine the principles governing the assessment of land and to lay down a new policy designed to secure a more equitable and fairer distribution of the burden on land. In a lecture by Mr. Montagu delivered before the war on 'Land Revenue Problems in India and England,' he observed with reference to the policy in India that he was 'tempted to wonder whether it would be possible to apply a graduated scale of assessment instead.'

Reference may now be made to the different proposals which have been placed before the public as alternative methods for securing the revenue from land.

(1) The reduction of the percentage of the net income derived at present by the State and making a distinction between the smaller and larger landholders in the matter of the percentage of enhancement at re-settlements.—The ratio of the tax on agricultural incomes to be fixed after deducting a food allowance for the producer and his family and a sufficient sum to enable him to retain a small margin to fulfil the customary social requirements of his country.—The forecast prepared by the Revenue Officials and approved by Government to be discussed in the Legislative Councils and sanctioned by them.

(2) The abolition of the Land Tax and the adoption of a Universal Income Tax embracing every income and varying with the size of the family as an ideal form of taxation.

(3) The Land Assessment instead of being based on land incomes and supplemented by water charges, to be based on land values, i.e. the selling price of land. The land revenue levied to be a percentage of the land value.

(4) The permanent assessment of land and the levy of super-tax at a certain percentage of the assessment, each year, to meet the ascertained needs of the state to be made with the sanction of the legislature.

(5) To effect a permanent settlement of the land revenue after an equitable re-adjustment of the burden in the several districts at a certain proportion of the existing assessment and to make it a kind of rent charge on land, leaving the proprietorship of it to the raiyat and the income from land which remains over and above that part of it which is allowed for as the basis of this rent charge to be treated as the corpus of a tax on incomes.

I may be permitted to indicate my preference to the last proposal as the most satisfactory under the present circumstances. Any sacrifice that may be involved by the adoption of one or other of these proposals will be more than compensated by the larger contentment and prosperity among the raiyat population which will result therefrom. In view of the powers of taxation and of borrowing given to the provinces and also of new sources of revenue open to them, the financial loss for the time being in this direction can easily be made good. Also a more equitable system of provincial contribution to the burdens of the Imperial Exchequer will leave much larger funds in the hands of our Local Government to meet the increased expenditure that may be entailed by the growing needs of the state.

The Adaptation of the Indian Tax System to the Need for Increasing Expenditure

BY T. K. SHAHANI, M.A., PROFESSOR OF HISTORY
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'The most interesting side of history is after all the financial side' so said an English author conscious of the fact that much of the social history of England, the records of its progress and development, nay, the very life-struggles of the people were wrapped up in the figures of the annual budget of that country. Although the constitutional progress of India has very little relation with its budget figures, the social and economic condition of the country can easily be read between these figures which ordinarily attract very little attention of the average man. None the less it is expected that with the power of the purse passing gradually into the hands of the legislature, a more intelligent interest of the citizen will be roused in the matter of his pecuniary contributions to the State and the way they are disposed of.

On the revenue side, the history of Indian Finance up-to-date is characterized by no very great complexity. Land revenue had been in India, as in most of the countries of the world, the mainstay of the financier up to the era of Capitalistic Industrialism and monopolistic commercial and quasi-commercial undertakings of the State. Briefly told, the finances of the British East India Company after it lost its trade monopoly with the East consisted mainly of land and opium revenue; but as that trading body had never looked upon India with an eye to develop it as a modern State, the Indian Finances in the scientific sense of the term date from 1859 when Mr. Wilson was appointed the first Finance Member of the Government of India. The meagreness of the resources of the State and the correspondingly slight calls for expenditure are illustrated by the fact that the total gross revenues of India were £21,000,000 in 1840 and £40,000,000 in 1860 with expenditure at £23,000,000 in 1840 and £50,000,000 in 1860, the national debt being £30,000,000 and £90,000,000 respectively. After 1860, however, revenues, expenditure and public debt grew apace. Within

fifteen years from that time, questions connected with Indian Finance drew the attention of Parliament under the adverse criticism of Mr. Henry Fawcett who, however, was ably met by brothers Strachey in their most useful book on Indian Finance and Public Works published in 1882. The Indian revenues under proper management had shown a fair amount of elasticity as the figure of 1880 showed an improvement of nearly £25,000,000 in the gross—excise, customs, salt, stamps and registration fees having been gradually added to the list of imposts levied on the country.

In the course of only two decades (1860—1880) the country had made considerable progress in internal development and had been brought in closer touch with European markets and civilization. The demand for Railways and Irrigational Works quickened, and huge sums of money had to be borrowed from the English money market to launch these productive works. The national debt mounted up to £160 millions in 1878. The days of inertia or chaos were no more. An occasional outburst on the North-West Frontier did indeed cause a deviation of funds which would, otherwise, have been utilized for the internal growth; but on the whole the country improved its resources by the mere operation of orderly Government and the quickening of communications. The exchange uncertainty, however, would not let our finances run on a smooth course. The fullness of our exports had not yet been reached and the huge obligations we had contracted had to be met by an annual payment of nearly £20 million in gold. The silver revenues of the Government of India had therefore to be augmented by a little increased taxation on salt and foreign imports, but with all that our gross revenue of £65 millions in 1880 showed an improvement of only £5 millions at the end of two decades.

In the quinquennium just preceding the war the country passed through a period of undoubted good times, the monsoons behaved excellently well and the railways yielded a substantial net return, our total revenue rising from £75 millions in 1909-10 to £86 millions in 1912-13 and £84 millions in 1913-14. In this interval again, beyond a small duty on imports of silver, petroleum and manufactured tobacco, there was no additional burden imposed on the tax-payer. On the other hand, a substantial reduction in the rate of duty on salt was effected by the Government of Lord Minto. The bumper surpluses of this period of phenomenal prosperity were used towards the reduction of our unproductive national debt which, at the time the Great War overtook us, stood at only three crores of rupees out of a total

debt of 415 crores, all the rest being of a productive character yielding a return considerably in excess of the interest we had to pay for the total amount borrowed by us. This element of the financial strength of India stood the country in good stead during the stress of the war period. Our fresh obligations on account of our contribution to the war expenditure caused no entrenchment on our annual national revenue, as our productive works yielded a return sufficient to cover the total interest charges we had to bear and still leave us with a margin of profit amounting to £12½ millions. Our increased military expenditure, however, imposed fresh burdens on the tax-payer to the tune of nearly £9½ millions imposed mainly on the Tariff (an almost all-round 7½ per cent, sugar 10 per cent) including Exports Duties on Jute and Tea, and on the incomes of individuals and Companies under the principle of Super-Tax and 'Excess Profits' Duty. Not to miss the opportunity of convincing everybody that we were in the midst of war times, even the duty on salt was slightly raised. Our Imperial Revenue last year stood at nearly £110 millions.

Before proposing how the Indian Tax System should be adapted to the need for increasing expenditure, it behoves us to abandon the shibboleths of the two opposing camps:—

(i) That India is a very poor country—already very heavily taxed in proportion to the *per capita* income of the country.

(ii) India is a very lightly taxed country, since a great portion of the Indian revenues is obtained out of commercial or developmental functions of Government and out of land revenue and tributes from Native States—all of which, it is argued, stand on a basis different from taxation. Both of these views must be discarded if any reasonable solution of the question is to be attained.

The Honourable Sir Ibrahim Rahimtoola in the course of discussion on the Annual Financial Budget of the Government of India (1917-18) was the latest exponent of the first view when he tried to show that whereas the Indian tax-payer was contributing to the State per year Rs. 5 out of his *per capita* annual income of Rs. 30, i.e. nearly sixteen per cent of his income, the Englishman was burdened only to the extent of eight per cent of his income, i.e. about £4 out of his annual income of £50 to £60. This same note has been continually rung by all the critics of the British Government in India. That we are a poor country, as every country mainly agricultural must be, is a point which needs no labouring, but a constant harping on it does us as little good as did the ceaselessly plaintive moan of Mrs. Gummidge 'I am a lone and lorn woman' in Dickens' David Copperfield. Moreover, it is demonstrably wrong to maintain that we are still where we were

when Mr. Fawcett criticized the Government on its financial arrangements or when Doctor Dadabhoy Naoroji wrote his 'Poverty of India'. The vast progress made by the country in its production aided by great facilities of communication in the course of the last thirty years gives room for a very hopeful outlook, and one may reasonably presume that we have left the average of Rs. 30 *per capita* annual income far behind. That the masses are not that helpless miserable lot entirely dependent on the mercy of elements was well borne out by the results of the last Famine conditions in the greater part of India. There is so much work with brisk wages all round that it almost looks as if no one has now any leisure to feel miserable. Besides, in any arrangement of modern tax system the weight of taxes is always distributed according to the capacity of those who are called upon to bear it. The burdens are to be put on the right shoulders. The days of proportional taxation are no more: it is the principle of progressive taxation that rules. The duty of a citizen to support the State increases at a rate more rapid than the increase of his property or his income. But while it is true that the brunt will be borne here, as elsewhere, by the well-to-do, it is devoutly to be wished that the instinct of maintaining the State came more and more to be recognized as no less important than the having of the very first necessities of life. The State is as great a necessity as air, water and bread, and the consciousness that it is our State which we have to maintain must grow rapidly through the vast masses of the country for financial as well as political reasons. They ought to be interested in how their money is being spent and they are to learn to feel themselves identified with the country. On some such considerations it may not be quite unreasonable to make a commodity of universal consumption an object of impost of which, as far as possible, a full consciousness must be imparted to the tax-payer.

Those who argue that India is very lightly taxed, i.e. only about Rs. 3 per head in the course of the year (£44 millions over a population of 250 millions), since a great part of the Indian Revenue is obtained out of commercial and quasi-commercial undertakings of Government, lose sight of a very important consideration in any financial arrangement, viz. that the taxation of a country is to be viewed at as a whole system which envisages all possible avenues of revenue. In that system are included the direct and the indirect taxes as well as the profits accruing from the various monopolistic fee-bearing services of the State. The ancient and the medieval State which

was practically summed up in the personal ruler of the State resorted to the practice of reserving State domains for yielding public revenues. The modern State undertakings originally started with the welfare object were incidentally found to yield a surplus to the exchequer, and as they have never been worked on the principle of *quid pro quo*, profits accrue, i.e. the general consumer pays for the use of these various State monopolies more than what it exactly costs the State to run them. The appropriation of these sums by the exchequer is perfectly legitimate, for they afford a relief to the tax-payer exactly in proportion to their strength. Lord Meston in the course of discussion on his budget of last year threw a great light on this point in the following words:— 'Railway receipts are not a separate fund of which Government are merely trustees and which is quite apart from our ordinary revenue such as the Paper Currency Reserve or the Gold Standard Reserve. They are an integral part of our general revenues, just as much as our receipts from Forests or Post Office, or any other commercial or quasi-commercial activities of Government, and we are entitled to use the receipts for ordinary purposes just as in the old days, when the Railways were producing a loss instead of a profit, general revenues had to make that loss good. If then we did apply the Railway receipts very largely to ordinary purposes, we should not be doing anything wrong. Prussian Railways are well managed and their revenues have contributed a great deal to the general administration of the country'. In fact, these monopolistic undertakings of the modern state are an excellent supplement to the taxable material available in every country and have a further merit of softening the rigour of taxation under the guise of service rendered for the payment. Therefore, while fully allowed to find room in any modern financial system, they must not be mentioned as standing absolutely beyond the pale of the taxation system of which they are an integral, though least felt part. Even the land revenue which has hitherto occupied an anomalous position of being an affair of the Indian Executive on the interpretation of its being the old *Rajabhagan* is absolutely without any ground for exclusion from the general tax system of the country. In connection with this Lord Selborne's Committee on Indian Reform Bill remarks: 'The principles governing the revision of the assessment of land revenue should be brought under closer regulation by statute as soon as possible, as part of a general policy of bringing within purview of legislation the imposition of new burdens'.

We are in the midst of an era of increasing expenditure which needs must call for many sacrifices from us. 'In order to make us love our country, our country ought to be lovely' said Burke. Our lot is cast in India, let us be a credit to it. The generations after us must bless us in the same way as do the descendants of go-ahead, enterprising, self-sacrificing settlers and pioneers in a new land. Hitherto the Government of India, the chief custodian of all our interests, has been with the best of intentions obliged to move slowly and cautiously in the matter of reform. The last war was, however, a great eye-opener. In the memorable words of His Excellency the Governor-General, 'the war has made us realize as never before how we in India have been passing our great resources by. Thrown back on ourselves we have already increased our output of industrial products in several directions a hundredfold, and this war will have proved a blessing in disguise, if through its teaching, we shall have learnt how a great field of enterprise lies open to us in the industrial and agricultural spheres, and how necessary it is to organise ourselves industrially. This war is the birth-date of India's industrialism' (Lord Chelmsford). On another occasion in the Council, His Excellency the Governor-General was obliged to acknowledge how the war period had necessitated an arrested progress in education, sanitation, public works and kindred objects which are in other countries 'the touchstone of civilized life'. As much leeway has to be made up, the country must prepare itself for increased financial burdens. Enhancement of taxation is much more difficult in a country like India, as regards carrying it out equitably and without friction than it would be in Western lands; it would, therefore, be Utopian to expect absolute unanimity in respect of fresh taxation, especially on the part of those who have to bear the brunt of it. Yet a little speculation on this point may be permitted to a student of Finance who has no particular interest to defend:—

(1) The first head to suggest itself to the writer is an enhancement in the general Tariff import where a two and a half per cent to four and a half per cent increase may be effected without hitting the consumer very hard. An imposition of ten to twelve per cent *ad valorem* on all articles of luxury including foreign fabrics is intended to fall mainly on the well-to-do classes of consumers and at the same time may serve the useful purpose of giving encouragement to home-made goods wanting to compete in that line. Foreign imports of sugar will have to be treated more harshly with particular reference to the interests of Indian-made sugar (subject to the Report of the Indian Sugar

Committee). In the case of foreign liquors, petrol, manufactured tobacco, silverware and other curios twenty to twenty-five per cent *ad valorem* need not be considered a disconcerting measure. If to this we add a revision of export duty on tea and jute and a fresh impost of export duties on raw cotton, we should reasonably hope to find the Indian Exchequer richer by four to five millions of pounds. It will, of course, be the business of the Government experts to adjust the Tariff, but it is hoped that it will do so with an eye to add to the Public Revenues as well as to give the indigenous industries a fair share of encouragement. India's agricultural wealth is likely to remain long in brisk demand in the depleted markets of the world: therefore there is no great fear of our export falling off on account of either a diversion of our raw materials for home manufactures or on account of our penalising the foreign imports by raising a fairly strong tariff wall. A certain amount of callousness to the better class of consumer is unavoidable under the proposed arrangement.

(2) As the burden of taxation is mainly to be borne by those whose shoulders are broad, the next line of attack will have to be the huge profits of the merchant and the Indian manufacturer of to-day and to-morrow. What was just permissible as a war measure may, with a few modifications, be made a permanent feature of the revenue system of a progressive country. The war profits duty has a bad odour about it: therefore it should be entirely replaced by the super-tax and the ordinary income tax. Inelasticity under this head of revenue was a feature of by-gone times. It only requires the lynx-eyed vigilance of the Indian Chancellor of Exchequer to tap this source of revenue equitably in the best interests of public finance as well as the growth of further national production.

(3) If the urban magnates are subjected to a searchlight, the rural magnates—the lords of broad acres of land—must not be allowed to escape their due share of responsibility to the State. It is by no means enough that they pay at the present rate of land revenue assessment from which even the poorest peasant farmer, a Ryot holding one acre of land, cannot claim exemption. A clear line of demarcation should be made to distinguish the big land-lord from the middle class land-holder. The poor peasant-farmer, again, must be differentiated from both these classes of land owners. Something corresponding to Super-tax in the case of the first and ordinary income-tax in the case of the second class must be added to the present rate of revenue assessment. Perhaps a more humane though bolder proposal will be to exempt outright the lowest class of land-holders

(whom it is a mockery to call land-holders) the most hard-worked and the hardest hit in India—from all Government land revenue, reserving him only for local cesses to feed his Taluka and District Local Boards, and to shift the burden to the big species—just those whose shoulders are broad enough to bear the brunt. The peasant may be left to stand his contribution to the State in the shape of indirect taxes on his salt, petroleum, etc. Provincial Governments, will have no easy nut to crack if they launch themselves on a sea of schemes of internal reform without making the rural magnates pay the State their full share.

(4) Another impost for which the time seems to be fast approaching, if we are not already in it, is a levy on Inheritances and succession of all fortunes above five lakhs of rupees, which in the case of direct heirs should never exceed two per cent.

(5) The town-landlord whose property and income grow with the growth of urban population but whose rapacity could only be restrained in these days by Rent-laws must make ample contributions to the exchequer in addition to his liability for Municipal dues. Mere application of income-tax rules will not do in his case. The merchant, the manufacturer, or even the rural landlord takes a certain amount of risk in his productive work, and the profits of all these are in a measure due to their personal foresight, judgment, enterprise, and talent for administration. The town landlord makes a safe investment and goes to sleep: his rent grows with the spontaneous growth of the town. His is the property which is essentially on the defensive. His contribution to the Public Exchequer must, therefore, be distinctly greater than the corresponding share of owners of other kind of income-yielding property.

(6) Railway freight charges are capable of a slight increase: but care must be taken that the enhancement does not become a handicap to free movement of goods.

(7) While excise duty on home made cottons should outright disappear, salt tax may, without offence, be raised to Rs. 1-8-0 per maund. The writer is quite conscious of the strong opposition that would spring up against a suggestion of this sort, but he has strong reasons for maintaining it. In the first place, it is no heresy to say that the poor man's stake in the country should be greater than what it is. Secondly, for the various benefits that are to accrue to him in the matter of education, sanitation, medical help, etc., it is not too much to ask for the sacrifice of a few pies more from his monthly budget. Thirdly, with the development of indigenous industries the

field for his employment will be considerably widened, his labour will be much in request, his wages will therefore increase though there may be a slight off-set by way a rise of prices : but, on the whole, his staying and purchasing power will have much improved. Taking all these things into consideration, a slight addition to his sacrifices for the State which does so much for him should not be viewed with absolute disfavour.

(8) On the side of commercial and quasi-commercial undertakings of the State, Forests, Railways and Irrigational Works are all distinct sources of growing income. No Government can in these days afford to slacken its pace in developing what helps the Exchequer and is at the same time conducive to the general prosperity of the State. 'The Indian Mercantile Marine and Commercial Air Craft are two other great needs of the country. If the State is for any reason unable to bring these within its sphere of commercial undertakings, it should give every possible encouragement to the indigenous attempts in this direction under a guarantee system which, in course of time may enable the State to participate in the profits of the concerns.

But after all has been told about obtaining the ways and means to meet the increasing expenditure, perhaps the greatest asset still remains behind, and that is, 'Economy, Economy, Economy in Expenditure'. *Magnum parsimonia est vectigal* (Parsimony itself is a great income). From Cicero down to Burke, to Gladstone, to Gokhale, to Lord Meston the continual cry of the public financier is that parsimony in one direction may avoid taxation in another.

Said Lord Meston in the course of his last year's budget discussion:—' You may think that economy is a threadbare motto in our Financial Statements, but I am convinced that, coupled with courageous outlay on the essentials of progress, a strict economy in all non-essentials will in the near future be more necessary than it has ever been. '

A note on Post Reform Public Finance in Bengal

B. K. BHATTACHARYA, RAJSHAHI COLLEGE, BENGAL

Mr. Bhattacharya dealt in considerable detail with the finances of Bengal, and estimated the need for increased expenditure as follows:—

	Recurring Expenditure. Rs.	Capital Expenditure. Rs.
Education ...	2,08,25,000	2,64,45,000
Public Health ...	40,00,000	8,00,00,000
Roads ...	25,50,000	9,00,00,000
Agriculture ...	5,40,000	11,00,000
Industries ...	12,00,000	18,00,000
Co-operation ...	34,24,000	...
	<hr/>	<hr/>
Total ...	3,25,39,000	19,93,45,000

He proposed that the resulting deficit should be met partly by a Provincial Income Tax, and partly by contributions from the Government of India.

DISCUSSION

MR. G. SATYANARAYANAMURTI deprecated the idea that there was any necessity for increased taxation. He also deprecated increased capital expenditure on railways, alleging that, according to a recent Famine Commission Report, the maximum mileage had already been attained. On the other hand, he advocated increased expenditure on waterways, which are both producers and distributors of agricultural produce, whereas railways only distribute it. He opposed Prof. Shahani's suggestion of increasing the tax on salt, a vitally necessary part of the poor man's food ; and recalled the Gladstonian dictum of the necessity for impartial treatment of direct and indirect taxation.

MR. T. K. DORAISWAMI AIYAR opposed the proposal of a house tax, and said that Indian finance is in a very sound condition as compared with British, and the proposed tax was as unnecessary as it was objectionable.

RAO BAHADUR K. VENKATA REDDY discussed Mr. Ranga-swami's suggestion that the responsibilities of the British Government should be lightened by converting Zemindaris into independent principalities. He said that the Zemindari ryot valued his citizenship very highly, and would greatly resent being deprived of it ; and the fact that Zemindars notoriously were very lax in using their existing powers for the benefit of their people was no good argument for giving them greatly extended powers and responsibilities. He also had great doubts about the wisdom or practicability of the substitution of a tax on incomes derived from land for the tax on land. The great majority of ryots were illiterate, and, almost universally, they kept no accounts. To ascertain how much they ought to pay would be extraordinarily difficult, and it would be still more difficult to make them understand the way in which the tax was determined. Further he did not think there was any necessity for any great changes in the existing system. The financial condition of India was sound, and if the present rate of exchange should continue there would be a great further easing of the financial position.

MR. T. G. ARAVAMUTHAN said that Prof. Rangaswami's proposal for the abolition of the Land Revenue was the only solution so far put forward for the complications that have arisen out of the Permanent Revenue Settlement; and that his proposal for the taxing of all incomes—high and low—was equally commendable as it was the only practicable way of enabling the state to feel the economic pulse of the body politic, of measuring fully and accurately the extent of social responsibilities, and, finally, of rendering social justice.

PROF. BURNETT HURST pointed out that there had been, during the last few years, a tremendous rise in the values of land in the cities of Bombay and Calcutta. This was due to the fact that capitalists had made huge profits during the war and wished to invest those profits in land and building. For that reason they found that houses and land had been changing hands at very high figures. During the last few decades there had been a tremendous increase in the value of land in places like Bombay owing the extension of factories and improved railway communication. The landlord who had been sitting tight doing nothing and introducing few improvements had now been able to benefit by the increased value. In these circumstances, he maintained that it was the right of the state to share the increase of the land value, and urged that the proceeds of this taxation should be devoted to the betterment of those classes who had been suffering from the greatly increased rent.

THE HON. REV. E. M. MACPHAIL touched upon the question of the distribution of the burden of Indian taxation upon the various provinces, and pointed out that Madras was paying much more than its fair share. He thought the question of bringing about an equitable distribution, fair to all provinces, was worthy of the attention of a conference of economists. He pointed out that in all questions of taxation the tendency was to try to shove the tax on another man. Hence in the present assembly it was probable that everybody would agree that it was desirable to tax the very rich, and to build up a system of progressive taxation whereby something could be done to relieve the really poor. But when it came to be decided who were the rich who ought to pay, and the really poor who ought to be relieved, every class was ready to claim relief for itself. He had always felt great sympathy with the idea that the unearned increment in the value of the land should be the property of the whole community, and was therefore a specially proper resource for taxation by the state. For this reason he had always been an advocate of temporary as opposed to permanent settlement. There might be a

need for redressing particular grievances, but he would be very unwilling to see the principle given up that the state has a right to share in the increased value of land where it has been brought about by other means than improvements by the private landholder. And he regarded the proposal to levy income tax upon a vast number of very small land-holders as entirely impracticable.

DR. GILBERT SLATER fully endorsed the remarks of the two last speakers. Referring to Mr. Bhattacharya's paper, he pointed out that it was no doubt very popular in Bengal to say that the Government of India should pay, in grants, a great part of the expenditure needed for the improvements in Bengal services which Mr. Bhattacharya advocated, but this meant that the poorer provinces like Madras, already very much more heavily taxed than Bengal, should have still further taxation laid upon them, in order that the money might be paid over to the richest, and most lightly taxed, province of all India. Madras was entitled to have it say on that proposal. Bengal had its own remedy in its own lands. He strongly deprecated Prof. Rangaswami's reference to 'a scrap of paper' in connection with Permanent Settlement. It was true that back in the eighteenth century the East India Company had given the Zamindars of Bengal to understand that it was not its intention to increase the revenue from any 'permanently settled' estate, and that pledge was honourably fulfilled to the very end of the Company's existence. But now the Company had ceased to exist for over sixty years; and under the Reform Scheme, Land Revenue became Provincial, and Provincial Revenues came under the control of the elected representatives of the people. It was absurd to contend that any pledge by an extinct foreign trading corporation as to what it would or would not exact from Indian land-holders should prevent a representative Government of Bengal or Madras from raising the revenue necessary for such services as education, sanitation, transport, protection of life and property, in whatever manner seemed to them most just and beneficial. If such a government decided to increase its revenue by abolishing Permanent Settlement, it would be doing what is wise and just, and no imputation of bad faith could be laid against it.

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Nath.

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The Hon'ble Justice Zafar Ali.

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Honorary Local Secretary and Editor of the Proceedings.

Professor W. H. Myles, M.A., University of the Punjab.

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INDIAN ECONOMIC ASSOCIATION.

CONSTITUTION.

1. The objects of the Indian Economic Association shall be
 - (a) the holding of annual Conferences ;
 - (b) the publication of the proceedings of the annual Conferences ;
 - (c) the publication of a journal and its free issue to members ;
 - (d) such other action to promote Economic Science and the dissemination of economic information as may be deemed advisable.
2. The membership of the Association shall be open to teachers and students of Economics and to other persons interested in Economics in general or in special economic problems, if duly elected.
3. The government of the Association shall be vested in a Committee of not more than twelve and not less than six members elected at the annual Conference, exclusive of *ex-officio* members.
4. (a) The officers shall be a President, an Honorary Secretary, an Honorary Treasurer, and a local Honorary Secretary.
 - (b) The posts of Honorary Secretary and Honorary Treasurer may be held by the same person.
 - (c) The local Honorary Secretary shall be elected for one year at the annual Conference from members resident in the locality selected for the ensuing Conference, for which a local Committee shall be formed.
 - (d) The officers shall be *ex-officio* members of the Committee.
 - (e) The tenure of office of the Honorary Secretary and Honorary Treasurer shall be for one year or until their successors be elected.
5. The agenda of the annual Conferences shall be drawn up by the Honorary Secretary.
6. In addition to papers from members the Honorary Secretary may arrange for papers from associates and non-members, if thereby valuable contributions can be obtained from experts on particular questions.
7. The annual contribution from members shall be Rs. 12 (reduced to Rs. 8 per annum for two years beginning with 1st October 1921, as an experimental measure). This shall entitle members to attend Conferences and to receive copies of such papers read at the annual Conferences as may be published, and any other publications of the Association unless expressly excepted.

8. The annual contribution for associates shall be Rs. 6 and this shall entitle associates to attend Conferences and to receive such reports of the proceedings as are published by the Association, but not to vote on the affairs of the Association.

Members of the general public may be admitted as visitors to the Conferences by ticket at the discretion of the Local Committee, at a charge to be fixed by the General Committee.

9. Candidates for membership shall be proposed and seconded by members and accepted by the Committee by a two-thirds majority.

10. Applications to become associates shall be submitted to the Committee by the local Honorary Secretary.

11. A member on paying a contribution of Rs. 200 shall become a life member, exempt from all further contribution.

12. It shall be the duty of the Committee to arrange for such cordial co-operation as may be found practicable, with local Economic Associations and with All-India Associations having cognate aims.

13. It shall be the duty of the Committee to arrange for the publication of the proceedings, either through existing journals or independently.

14. Notice of proposed amendments to existing rules and of proposed new rules shall be forwarded in writing, not later than 31st October preceding the meeting to which they are to be submitted and not less than two months before the meeting, to the Honorary Secretary, by whom they shall be circulated to members not later than 25th November and not less than one month before the date of the meeting.

15. A two-thirds majority of the members present and voting at the Annual Meeting shall be required to alter the constitution of the Association.

16. The annual accounts shall be closed at the end of September and shall be submitted, after audit, to the Annual Meeting by the Honorary Treasurer.

17. One or more Honorary Auditors shall be appointed by the Committee.

INDIAN ECONOMIC ASSOCIATION.

SIXTH ANNUAL CONFERENCE

HELD IN

LAHORE

January 16th, 17th, 18th and 19th, 1923.

FIRST DAY—Tuesday, 16th January, 1923.

OPENING ADDRESS

BY

HIS EXCELLENCY.

**SIR EDWARD MACLAGAN, K. C. S. I., K. C. I. E.,
GOVERNOR OF THE PUNJAB.**

The first Meeting of the Conference was held in the Town Hall, Lahore, at which most of the Members of the Reception Committee and a large number of the general public were present.

HIS EXCELLENCY SIR EDWARD MACLAGAN, K.C.S.I., K.C.I.E., President of the Reception Committee, took the Chair at 11-0 a.m., and said :—

MR. COYAJEE AND GENTLEMEN,

I am very glad to find that after trying other centres in India you have selected Lahore as the site for your sixth Annual Conference, and it is a distinction for us that this Conference should be presided over by so eminent an economist as Mr. Coyajee. We have a number of gentlemen here who study Economics, and the subject is, as you know, one of growing interest among students at our Colleges. The Deputy President of our Legislative Council, Mr. Manohar Lal, is a former Minto Professor of Economics in the Calcutta University, and though busy with Council and professional work, he finds time for studies in Economic Science. Our University has recently entertained its own

Professor of Economics (Mr. Myles) and with his help a combined class of students for M.A. Economics, taken from all the Arts Colleges in Lahore, has been established, the teachers of different Colleges combining their teaching for this class. You will therefore find not a few kindred souls among us and we hope for much real benefit from your stay.

We are the more appreciative of your visit as we have ourselves in recent years tried to encourage the study of our own economic questions by the crection of a Standing Board of Economic Enquiry. The Board was started in August, 1919, and has taken up a number of subjects for investigation. It receives a small grant from Government and it has at present—if I may dare to use the expression—a steel frame-work of Government officers, but it is in its essence an academic and non-political body and a large and increasing amount of the work done by it is done by non-officials. I hope that when it has found its feet it will evolve into a purely scientific body assisted by the Government and assisting the Government but not in any way under Government control. It has from the beginning been divided into two sections which deal with rural and urban subjects respectively. It has put together some material on household budgets and on the economic condition of certain defined groups of villages. And it has taken up enquiries into such varied subjects as the size and fragmentation of holdings, the economic condition of factory hands, and the supply of milk and ghee, all of which subjects are of much importance to us in this Province. It has commenced the organization of a bureau of statistics and it has furnished Government with opinions on Trade Union Legislation. I hope that members of our Board, many of whom are present here to-day, may receive fresh inspiration for their efforts from the proceedings of your Conference.

I am glad to see that several of our Punjab Government and University officers have arranged to read papers before you,—Mr. Abel is to speak on our Factory Legislation and Administration, Mr. Myles on Industrial Development and Training, Mr. Calvert on the Consolidation of Holdings, Mr. Strickland on Co-operative Farms, Mr. Darling on Rural Debt and Mr. Jacob on the Periodicity of Food Prices. Three of these officers are members of our Co-operative staff, and I am particularly struck by the valuable literary work which the Co-operative officers in our Province have been able to do not only in their own line of co-operation proper but also in general economics. Messrs. Darling and Strickland have published valuable accounts drawn from first-hand experience of the conditions of co-operation in various parts of Europe and Mr. Calvert has produced an admirable series of studies in Punjab Rural Economics under the title of "The Wealth and Welfare of the Punjab." This last is a work which investigates the practical results of the application of economic theories to our rural problems and it is, I venture to think, a book which every one interested in the economic progress of India should read and assimilate.

I know that to some of you the practical results of your investigation are matters of subsidiary interest but to us who have to deal with administrative questions the practical results are what we look to.

Few administrators and politicians have time to be economists, but if they are wise they obtain, when they are young, a general view of economic principles, and as each problem arises they learn as best they can the recent developments of economic theory on the question at issue. The main lines on which we look at this time for development in this Province are—to put it briefly—Education and Agriculture, and on both these lines your studies have a marked bearing. In Western Canada we are told that more than half the farmers are graduates and though we are here still a long way off these conditions, we are trying to foster both Education and Agriculture and the application of the one to the other. If I may refer to history I would exemplify the importance of these lines of development from the experience of Scotland. During the seventeenth century Scotland was subjected to a turmoil of political and religious controversy and when the Union took place at the beginning of the eighteenth century, the only feeling through the country was one of intense hatred towards England and despair for the future. But the Scotch soon learnt the value of peace and for years they devoted themselves to the development of a thorough system of education and a scientific application of rural economy.

There was little enough theory at the back of this at first, but before the eighteenth century was over the Scotch had not only provided for their country the best education and the best agriculture in Europe but by the publication of “The Wealth of Nations” had made the first substantial step towards the systematic study of Political Economy. By the end of the century the Scotch had emerged from the condition of a second rate appenage of England to a position in which they led the van of progress and controlled the destinies of the United Kingdom: a result which was due almost entirely to their having followed—consciously or unconsciously—the dictates of economic principles.

I hope you will not think me presumptuous to have brought this old example forward but it shows I think the advantage of the practice which you all stand for—that of clear thinking applied to the complicated realities of economic life. You strive to make us think accurately. You will not allow the poet to say:—

Every moment dies a man,

Every moment one is born,

but like Babbage, the mathematician, you point out the inconsistency of the statement with the increase of the population and you insist on our substituting

Every moment dies a man,

And one and one sixteenth is born.

All this is to the good and I anticipate the greatest benefit from Conferences like this which encourage men to bring together facts untinctured by prejudice or passion and to extract lessons from them in the cold light of accurate thought. I wish you all success, gentlemen, in your meetings at Lahore.

PRESIDENTIAL ADDRESS

ON

FISCAL POLICY

BY

J. C. COYAJEE, Esq., M.A., PRESIDENCY COLLEGE, CALCUTTA

YOUR EXCELLENCY, LADIES AND GENTLEMEN,

On behalf of the Indian Economic Association I have to express my deep thanks to Your Excellency for your words of cordial welcome. I have also to express our obligation to the Local Secretary and the Reception Committee for their admirable arrangements. The philosopher Plato observed that things will go well with the world when either kings were philosophers or philosophers were kings. In a similar way the economists of India must augur well for the economic future of India when they see an economist in the Governor of this province—an economist whose dicta on co-operation they have studied long with great advantage.

The great fiscal controversy which occupied the political as well as the academical circles of the western world for over a century and which for over half a century has loomed large in the field of Indian Economics has recently assumed an acute and practical turn in our own country. A great deal of preliminary work has been done in the matter by the Indian Fiscal Commission, and the Government of India and the Indian Legislature will soon pass judgment upon the subject. But before such a judgment is pronounced the controversy must come before the economists of India as before a jury of experts whose privilege it should be to pronounce a well-considered verdict and to give a lead to the nation. I am deeply obliged to you for giving me this opportunity of introducing the subject. But the aspects of the fiscal problem are many, and in the space of a few minutes I can only indicate rather than deal exhaustively with some of the aspects. I shall begin by appraising the value of some arguments for protection, and then will examine the nature of discriminating protection. I would end by noticing the problems of foreign capital and the excise duties.

As regards the arguments for protection the place of honour was to be given to the infant industry argument of which the force was increasing automatically with the increase in complexity and scale of business, the rise of joint combinations and the growth of export policies and devices. A co-ordinate place was to be given to the argument for the diversification of industries but not much importance was to be attached to the revenue argument, because protectionist tariffs did not yield big revenues except in countries where the body of consumers was very rich. The case of Japan had been cited to the contrary but with no good reason because relatively to the other sources of revenue the yield of

customs revenue as well as its elasticity were low. Again, in India in the last 16 years customs revenue had multiplied faster than most other sources of revenue, while in the case of Japan the customs revenue increased much less fast than other sources of revenue.

Coming to discuss the nature of discriminating protection, I would point out that its advocates estimated correctly the limitations of the potentialities of protection. High economic authorities had pointed out that protection must work within the limits of comparative economic advantages or of what is called comparative costs. Any attempt to push protection beyond these reasonable limits would reduce our exports as a consequence of reducing the proper scope of international exchange of commodities. Indiscriminate protection abdicated the function of protection which was to guide national production into comparatively more productive lines. In a word the whole scheme of discriminating protection followed the law of comparative costs: it selected industries to protect on the lines of comparative costs: it fixed tariff rates in the light of relative costs of production, and finally when the industries had developed their comparative advantage in the proper and contemplated measure protection was abolished.

There is a case for pausing before the adoption of the rather crude methods of restriction that have been proposed. When, and if, there are signs that a plethora of foreign capital is being attracted towards India, it will be time for us to think of imposing conditions on it and it will comply with them in its own interest. But as it is, our demand for foreign capital for our industrial capital is enormous and the stream of foreign capital towards us is becoming smaller with political and other troubles. The competition of foreign capital would lighten the burden of protection on our consumer, would shorten the period of infancy of our industry and would give us the much coveted industrial organisation and environment.

Artificial remedies of nationalizing or keeping out foreign capital have never been successful. A reference to the investigations of authors like Grunzel on the subject shows that restrictions on foreign capital do not meet with the approval of even protectionist economists. There are cases of course, where legislation might be conceivably necessary to prevent exploitation by foreign capital or enterprise. There is the case where foreign enterprise has formed itself into a monopoly, is exploiting the consumer and is closing the opportunities of competition to local producers by means of unfair devices. But so long as foreign enterprise maintains competitive conditions and the proper plane of competition there can be no question of exploitation by foreign capital. The fear of such exploitation is only the reminiscence of bygone conditions when Indian capital was inert and Indian enterprise was non-existent. At such period no doubt it was easy for foreign enterprise and capital to assume monopolistic powers and exploit the country. But such conditions have passed away and we must not sacrifice our present national advantage for the sake of recollections of the past. There was also a time when foreign capital assisted by political favours might have thought of exploiting a country, but with the growth of

political autonomy there can be no reasonable suspicion of any such state of affairs.

Finally we must remember that the Indian is the natural heir of all foreign enterprise and capital. The foreigner when retiring must needs sell his securities and they are thus transferred automatically into Indian hands. Thus in many jute mills of Calcutta more than 50 per cent. of the shares are by now in Indian hands in spite of the proverbial Scotch clannishness and with anything like reasonable enterprise we should have acquired the predominant interest in the direction of the industry.

The majority of the Commission has most justly condemned the historical origin of the cotton excise. It was imposed by a powerful rival on a struggling infant competitor. There was no excuse in free trade theory for the duty in those days, since it is no necessary part of that theory that every modest revenue duty should be necessarily countervailed by an excise. Moreover, the infant industry argument is entirely compatible with free trade theory and the incidental protection afforded by a 5 per cent. import duty was the least that an infant industry could expect as support.

But we must not mix up an old historical situation with the greatly altered situation of the present and we must consider the present excise duty on its merits. The majority had entire justice to the domestic producer by advocating for him such protection as the Tariff Board might recommend. The question of excise duty according to them arose only when an additional import duty was put on for revenue purposes. And even then the excise duty was not to be equal to this additional import duty but was to be smaller in amount. It is difficult to see how the excise duty levied under such a scheme could injure the development of any local industry. This majority scheme is in fact much more favourable to the domestic industry than the Japanese scheme. Under that scheme protection is granted to industry and then if further import duties are levied on an article for revenue purposes an *equivalent* excise is imposed upon domestic production. Let us take an example to illustrate the scheme of the majority. Suppose an industry requires and obtains a protection of 15 per cent. Suppose further that for revenue purposes an additional amount has to be obtained by the taxation of the article. The choice might conceivably lie between an extra import duty of say 15 per cent. on the one hand and an import duty of 10 per cent. accompanied by an excise duty of say 5 per cent. Strong considerations present themselves in favour of this latter course. *Ex hypothesi* the protection required was only 15 per cent. and a 30 per cent. duty would give over protection to the industry with its manifold evils and temptations which are well-recognized by economists. Moreover the 30 per cent. duty would raise the price of the foreign import to the domestic consumer unnecessarily high. It will also raise the prices of competing domestic products and substitutes. Consequently the domestic consumer is harmed while the producer obtains an unnecessary amount of bounty. Such over-protection is not very beneficial to domestic production as a whole and leads to stagnation since it

removes all motive for improvement and for avoiding antiquated and backward methods of production. Again the minority is wrong in asserting that financial authorities would limit the employment of excise duties to the case of deleterious drugs and drink as Pierson would have argued. Each excise duty is to be judged on its own merits. Again the majority did not consider it any part of its duty to tie the hands of the Assembly as regards the use of industrial taxation. If the Indian legislature abolishes an excise duty it must first consider from what classes the lost revenue can be recouped and it will further consider the comparative tax-bearing capacity of these latter classes, especially after some of them have been adversely affected by the action of protection.

It might be asked "what was the value of a protectionist system which was discriminating and hedged round by qualifications"? To that the answer is that all fiscal policy must work under proper qualifications and on the right lines. Professor Marshall had drawn attention to the "cumbrous qualifications" of the free trade position. And it has to be remembered that as a policy free trade is simplicity itself compared to any legitimate scheme of protectionist policy for any given country. An efficient system of protection is a detailed and delicate affair and not a matter of easy shibboleths or of facile dogmatism.

At this stage of the Proceedings the Conference adjourned from the Town Hall to the University Library.

DISCRIMINATING PROTECTION.

By T. K. DURAISWAMI AIYER, Esq., MADRAS.

(In the absence of the author, this paper was read by Professor Myles, Hon. Local Secretary).

It is now some time since the Report was published and considerable comment has already been made in India and England. Fiscal policy is a subject that has been receiving considerable attention since the termination of the recent war and tariff walls have been and are being raised in various countries like Spain and U. S. A. with a view to keep out imports. Even in England where there is a tradition of free trade measures had to be adopted like the Safeguarding of Industries Act which free traders will be hard put to it to justify.

The discorded condition of the Continental exchanges added to the feverish desire of most countries to secure foreign markets and the determination to keep their home markets from foreign competition explain the rage for tariffs. The view that the course of trade should be left to its own devices and that the interference of Governments will only lead to the worsening of the situation has not for some years received whole-hearted support even in England and now the resources of English statesmanship are directed to the problem of devising measures for the development on a large scale of Inter-Imperial trade. In India for long years there has been a strong public opinion in favour of the policy of protection. The foremost English economists of the present day like Marshall and Pigou accept that the position taken up by the English economists of an earlier generation on free trade was unscientific. They admit that backward countries containing rich undeveloped resources and a population not sufficiently trained in mechanical pursuits may with advantage depart from the policy of strict free trade.

The soreness of Indian feeling on the matter is due to the fact that in the adoption of Indian tariff policy sufficient recognition was not given to the material difference in economic conditions between England and India. Without further preface I will pass on to consider the main recommendation of the Report.

The Report is in favour of discriminating protection. Its implications are : (1) that the industry possesses natural advantages, (2) that without protection the industry can develop not at all or not so rapidly as is desirable, (3) that eventually it will be able to face world competition without protection.

Two well defined lines of criticism have been directed against these recommendations. The Press in England and her businessmen and politicians are against the above recommendations, pointing out that discriminating protection is all the same protection and the inevitable result in high prices will affect the consumer whose poverty is proverbial. The dissenting minute that finds fault with the recommendation as a halting and a vague one and as not far reaching enough represents the prevalent Indian view.

In this connection it will be pertinent to remark that thus far in the history of British India Indian opinion has not had decisive weight in the determination of tariff policy. Largely for this reason the implications of protection and free trade have not been thoroughly gone into and an exhaustive examination of all the consequences good and evil has not been undertaken by Indian students and publicists.

Just as the Reform Act of 1919 transferring as it did to Indian hands the determination of policy in some of the spheres of Government brought to the surface differences of opinion which had lain submerged till he had led to the formation of parties or groups based on such differences, so the probability amounting perhaps to certainty that Indian opinion henceforward will have decisive weight in the moulding of Indian tariff policy may lead to the emergence among Indians of differing points of view.

Let us discuss in the dry light of economics the main recommendation. Those who urge that discriminating protection as the Report has defined it will not lead to the rapid industrialisation of India call for the removal of the safeguards provided for in the Report. They urge that these limitations will retard industrial progress and since protection is called for with a view to inspire confidence in the capitalists such a half-hearted scheme will not realise the intended aim.

English criticism against the recommendation takes the line that prices will rise to the detriment of the consumer and underneath the recommendation English critics detect a conspiracy on the part of the capitalists and the manufacturers against the masses. The middle classes, *i.e.*, the educated section being doctrinaire and out of touch with the realities of industrial and commercial life, is said to be playing into the hands of the capitalists.

While the Report is for discriminating protection those who wrote the dissenting minute should not be called unfettered protectionists because they concede that the consumer suffers in the initial stages. The plea of unfettered protectionists is that from the beginning of protection there is no loss. They talk of new outlets for capital and labour and a home market near by for the agriculturist. The dissenting minute does not take up that line. The point urged in it is that protection hedged in with the conditions laid down in the Report will not bring about the rapid industrialisation that they desire. The dissenters do not give any convincing reasons for the position they take up. They urge that every protectionist country applies protection with discrimination. The history of protection in various countries however gives evidence of indiscriminate protection. The fact is that a policy of protection acts on the nerves of the manufacturers in most lines and also on agriculturists, and industries suited and unsuited call for protection. The inevitable compromises that characterise public life and the conditions that surround the passing of the bills through the legislature result in protection being granted to industries all and sundry. It is because protection is given to industries which are not suited to the country that later on utmost difficulty is felt in the matter of removing

the duties. So much for the dissenting views that in every country there is only discriminating protection. Again they find fault with the absence of faith disclosed in the statement in the Report that "India for many years to come is likely to concentrate on the simpler forms of manufactured goods." The dissenters are not fair in this respect. It is not a fact that those from whom they differ do not want that India should succeed in manufacturing complex machinery. On the other hand they feel that granted the natural resources of the country, and the agricultural bent of the population, and the temperament and traditions of the workers and the middle classes, for many years India cannot afford to compete with countries like England, United States of America, Germany, Belgium, etc., in the turning out of complex products. Those who think in this strain do not deserve condemnation. As a matter of fact even countries like France and Italy whose industrial organisation cannot be considered backward have not succeeded in those lines.

You have after all to reckon with distinct aptitudes and the specific genius of different peoples. The French are supreme in lines that call for delicacy of taste and subtlety of motive. Besides the statement referred to is an expression of opinion which is not unwarranted by the facts of the situation.

If we take stock of our resources and deficiencies it will be plain that for many years India is not likely to produce complex forms of manufactured goods. Coal, iron, hydro-electric power, large capital, labour efficient and mechanically trained, an intelligent class of foremen, capable technicians, inventors of processes and bold captains of industry are necessary for successfully establishing complex manufacturing industries.

Though we have plenty of coal resources the quality of our coal is not very high nor the quantity to be compared with that of England or America. In fact last year India imported foreign coal to the extent of nearly $1\frac{1}{2}$ million tons.

As for our labour the Report of Ainscough on British Trade with India for 1921-22 says that increased wages for coal miners resulted not in their improving their conditions of life and their efficiency but in increasing idleness. The output of coal per head of the miners fell from 111.1 tons per head in 1919 to 94.4 tons in 1920 and was probably less in 1921. It is such labour that has to be trained in mechanical pursuits and rendered quite efficient. As for iron it is true that we have plenty of high grade iron ore in Bihar and Orissa. In quality and quantity the hematite iron deposits of Bengal compare favourably with the huge American deposits in the Lake Superior region. A number of iron and steel companies are springing up and foreign capital and enterprise is flowing into the business. It is estimated that when all the companies which are being started will be in working order the output will be $1\frac{1}{2}$ million tons of pig iron and 1 million tons of steel. The figures for the United Kingdom of the production of pig iron and steel for 1920 are 8 million tons and 9 million tons respectively. Our resources in iron are

really large. In iron and steel production the competition India will have to face will however be very intense. Ainscough in his latest report says that combinations and amalgamations among steel producers are the order of the day in all parts of the world. The United States imposed a 100 per cent. duty on imports of English steel and in course of time was able to bring down her price to the British level. Our iron and steel industry will have an era of rapid advance under protection. At the same time for a good many years it will be impossible for us to organise the production of very complex manufactured goods like say motor cars. As for technicians and foremen that is a serious deficiency which will take some time for removal. The purely literary type of education that has prevailed till now is largely responsible for this. Without a large class of engineers and foremen modern industry cannot be carried on with success. There is ample field for recruitment if we are in right earnest about industrial progress and the general good of the country. The Industrial Commission report says: "It is not in manual skill, if they care to acquire it, or in the capacity for understanding technical problems that the castes which have in the past sought knowledge rather than commercial success are deficient". The problem of the unemployed educated class victims to the literary type of education is engaging the anxious attention of the authorities in Bengal at present. In Madras also there are increasing numbers of educated people with the accustomed careers closed to them on account mainly of their increasing numbers and the financial situation. They should not be left to their own devices. Such a policy is dangerous to the state and inimical to economic progress. The ministers of development and education may take up this problem and by laying the foundations of a satisfactory solution add to the economic strength of the country. In view of the additional reason that protection will adversely affect the middle classes more than any other class it is incumbent on the state to devise measures with a view to keep them as useful citizens of the state. The investigation of hydro-electric power schemes is not likely to be pushed forward on account of paucity of funds for some considerable time to come by the ministers of development in the provinces to whose charge such work has been transferred. From the foregoing remarks it will be seen that for a long time to come we will not be in a position to produce complex manufactured goods unless insufferably high protective tariffs are imposed which is out of the question.

There are also difficulties in the way of discriminating protection. Mistakes should not be made in the selection of the industries, and it is not always that you can avoid making mistakes. One of the safeguards is that the industries should be able ultimately to face world competition without protection. How can any Tariff Board, however perfect might be its constitution, foresee the difficulties that will arise as an industry develops and the degree of success that will attend the overcoming of those difficulties? How can the Tariff Board foresee the new processes that will be evolved in the industry in the different countries thus giving a special advantage to one country over another? Instances are not wanting to illustrate my point. Speaking of the domestic price of

steel in the United States of America being brought down to a level as low as the British price, Taussig says " moreover in Germany as in the United States these results came about in unexpected ways and in consequence of technical improvements whose effect had not been foreseen. What the Bessemer process proved to be for the iron trade of the United States, the Thomas Gilchrist (or basic) process proved for that of Germany. The basic process had just been perfected at the time when the protective tariff of 1879 was enacted ; but the leading German iron master then declared that it proved of no advantage to his country's industry."

The condition that the industry selected should be able ultimately to meet world competition is necessary. But one should not disguise from oneself the difficulty of withdrawing protection even when the test is ultimately satisfied. Taussig says in this connection " It happens however that there is always the most violent opposition to the application of this, the sole decisive test. In the same breath we are told that prices have been brought down and a flourishing industry has been brought to maturity, and also that the duties must by no means be touched." Even when the protected manufactures fall to such an extent in price that they figure in the export trade of a country thus showing that there is no further need of protection the manufacturers concerned raise a hue and cry against the abolition of high duties. This attitude is accounted for thus : " The main explanation probably is the general state of trepidation engendered by a long continued policy of protection, the constant proclaiming of the danger of foreign competition, and the parading of the pauper labour argument which always seems to strike a chill of terror into employees as well as employed."

One of the advantages claimed for discriminating protection in the Report is that it will restrict the rise in prices. The rise in prices is the consideration that has been urged forcibly by most British critics against even discriminating protection. They say, and the commissioners are not unmindful of it, that the consumer in India especially the agricultural masses are living in such poverty that they have barely any margin. Under these circumstances any rise in prices that is bound to come as a result of protective duties will adversely affect them. Consequently they say protection is quite unsuited to India. The answer to that is a policy of aggressive free trade has not been incompatible with the wretched condition of the peasantry, and in view of the advantages claimed for protection in the Report the contention of the English critics is not decisive.

It is true that other things remaining the same under protective duties there is a less profitable employment of labour and capital than under free trade. The real income of the country as a whole may therefore be said to diminish. This diminution which will become progressively less as the industry develops profitably exploiting the natural advantages that it possesses is the loss that the country adopting protection has to face. But in India on the other side of the account must be mentioned the development of productive power due to the expansion of the industries. The agricultural industry moreover is over-stocked

and the surplus instead of emigrating to countries like Guiana, etc., may be absorbed in the industries. I am aware of the argument that the remedy for the agricultural depression is the adoption of better methods of cultivation, the constitution of economic holdings, etc., and not the dubious expedient of protection. The relation between agricultural progress and protection will be considered below. Bold and enterprising capitalists will be prepared to come forward with their funds to start industries under protection. The development of industries will be taken up with more zest than the expansion of agriculture. The appetite of the capitalist is whetted by the scope for the expansion of industries while he is not equally prepared to use his capital for agricultural progress since profits in his opinion are not likely to be as great in agriculture.

On all hands the present condition of India depending for the livelihood of 70 per cent. of its population on agriculture is not considered satisfactory. The development of a many-sided and vigorous national character, the mitigation of the effects of famines, the scope for the investment of capital and the growth of general wealth have been urged in the Report as justifying their recommendations. While dealing with prices under protection regard must be paid to the character of the articles against which India will require protection. The Report rightly says that raw materials ought not to be taxed and as an ideal partly manufactured articles being the raw materials for finished industries should not be taxed. So our tariff will have to be designed largely to keep out manufactured goods and these constitute 70 and 80 per cent. of our imports. In this connection the following observations are significant. "A duty on a manufactured product commonly is either so high as to keep out all imports, or so low as to admit all and thus to be in effect merely a revenue duty. True, imports often appear to continue, and a division of the supply between domestic and foreign quotas often appears to be brought about. But the appearance is deceptive; the two sets of goods on examination prove to differ in quality, or to be for other reasons not in reality competitive." A duty on raw materials is more likely to be competitive. The reason for this difference between the products of manufactures and of extractive industries is that the latter are under the operation of the law of diminishing returns whereas manufactured products are likely to be produced under conditions of uniform cost or increasing returns. So the division of the market between foreign and domestic producers is not so likely in manufactured goods. In the light of these considerations one can see how the duty on manufactured goods to be effective must be fairly high almost prohibitive. The general poverty of the country may be said to militate against heavy duties on goods leading to high prices. It is therefore incumbent on the state to adopt discriminating protection, i. e., to levy duties on selected commodities only and not to precipitate a heavy increase in general prices by adopting protection for various industries. It will be plain from the foregoing remarks that the poverty of the agricultural population is a grim fact that faces us in our schemes of development. Argue how you will there is not much chance for protection without improving the standard of life of the agricultural

classes. It has been too long neglected and industrialists must realise that the best way of creating favourable conditions for manufactures is by rapidly pushing onward agricultural improvement. The problem has to be viewed as a whole. Our going in for protection necessitates the devotion of large funds to the vigorous prosecution of agricultural improvements. The agriculturist will be induced to improve his standard only when education becomes general. I hold this to be important because unless you broaden his outlook you will not succeed in making him improve his standard.

Sober criticism will grant that protective duties alone will not bring about industrial prosperity. As a matter of fact the industrial advance of Germany and the United States has been rendered possible more by other factors than protection. The magnificent natural resources in coal and iron in particular, a highly efficient scheme of technical and commercial education, the mechanical aptitudes of the general population, the genius of inventors and above all the boldness, judgment and enterprise of the captains of industry, explain in the main the progress of those countries. It cannot however be asserted that protection did not exercise any beneficial influence on the industrial development of those countries. In the United States protection for iron and steel was among other causes responsible for the large profits made by iron masters which profits were again invested in business with the result there was very rapid expansion in the industry. It is doubtful if without protection such rapid progress would have been attained.

The Report says that in case an industry does not fulfil the expectation on which protection was granted, the Tariff Board should be charged with the duty of recommending the withdrawal of protection. This is far from an easy affair. It is such industries that are mainly responsible for the view that if once protection is adopted, protection can never be overthrown. Evidently these are the industries in which the application of labour and capital is not comparatively effective. But capitalists would have made their investments and a labour force would have been trained to the work in the industry. As legislatures are constituted it will be an extraordinary thing if legislatures screw up their courage to withdraw protection from such industries.

Thus it will be found that there are risks attending the adoption of discriminating protection also but in the present state of Indian industries the risks must be faced and a scheme should be worked out by the Tariff Board in the best interests of the country.

REPORT OF THE FISCAL COMMISSION.

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It is needless for me to discuss within the purview of this paper the historical development of the fiscal policy of India, as it has been recently given to us in a masterly way by the members of the Fiscal Commission in their Report and by Dr. Pramathanath Banerjee in his book "The Fiscal Policy in India." However, to give us a historical basis we might in the words of Dr. Banerjee say that "The Fiscal History of India" divides itself into three fairly well defined periods. The first was the period of the East India Company's rule, when a protective policy was followed in the country. The protection was however in favour of Great Britain, and against India. The second period began with the transfer of the administration of India from the hands of the Company to those of the Crown (1858) and ended in 1914. These were the days during which the principles of free trade were applied with the greatest rigour. During both these periods England carried out in India her own trade policy. With what results? Well, one has to read the minute of dissent of Pt. Madan Mohan Malvia, to the Report of the Industrial Commission to find an adequate answer to this question. "The third period was ushered in with the sound of the war drum, and may be said to be still continuing. The financial stress caused by the great world upheaval led to some modification of the fiscal system of India, but the aftermath of the war has been responsible for the introduction of still greater changes into it. The customs duties of recent years have, it is true, been imposed for revenue purposes, but their protective tendency has, in a few cases, at least, been none the less marked. In fact, with the recognition on the part of the Joint Select Committee on Political Reforms in India of the right of India to decide her own fiscal policy, this period may be said to mark the transition from an absolute adherence to free trade principles to the adoption of a policy of protection."

It is equally unnecessary for me to enter into a theoretic discussion of the free trade and protective policies. The authors of the Fiscal Commission Report and Dr. Banerjee, have given us a very exhaustive study of the various arguments advanced by eminent writers like Fredrick List, Fredrick Bastiat, John Stuart Mill and many others, for and against these two policies. I cannot be accused of being partial to the one or the other if I say that all economic thinkers of note, whether free-traders like John Stuart Mill or protectionists like Fredrick List, maintain that the fiscal policy of a country should be relative to the circumstances of that country. Before deciding the line of action one must go deep into the condition of labour, the articles of imports and exports, and the nature of demand of the various commodities in and outside the country; unless these have been thoroughly gone into and analysed one cannot decide whether a country should adopt the policy

of protection or that of free trade. It augurs well therefore, for the industrial future of India that modern writers on the fiscal policy of India are trying to impress the relative character of these policies. The line of approach has been laid down for us in a very clear way indeed and I should think in a reasonable way too, both by the authors of the Fiscal Commission, and by Dr. Banerjee. Both of them try to impress upon us that these policies are very much like medicinal drugs on the absolute merits of which it is useless to pronounce any verdict, unless they are discussed with reference to some disease which itself has been thoroughly diagnosed. If the diagnosis of a patient leads us to the conclusion that it needs protection, we should give him protection; otherwise not. Doctors of tariff policy have laid it down for our general guidance that a country which is mainly agricultural should adopt a policy of free trade, so that by coming in contact with the better organisations of the outer world, it may learn things necessary for industrial development in other lines and initiate manufacturing industries on a capitalistic basis. When the stage of initiation is over the country should adopt the policy of protection. But protection should only be extended to those industries, which may have a sure prospect of development, and standing competition from foreign countries, when fully developed. They recommend this help as a temporary expedient only, and that to counteract the disadvantages of a late start. When this stage has been passed the country should revert to the Free-Trade Policy. As a general maxim to guide the fiscal policy of any country one could hardly take exception to the general policy recommended above. Even such a strong supporter of free trade as John Stuart Mill supports it in these words: "The superiority of one country over another in a branch of production often arises only from having begun it sooner. There may be no inherent advantages on one part, or disadvantage on the other, but only a present superiority of required skill or experience. A country which has this skill and experience to acquire may in other respects be better adapted to the production than those which were earlier in the field. Under these circumstances it is desirable to bear the burden of protection until the producers have been educated up to the level of those with whom the processes are traditional. A protecting duty continued for a reasonable time might sometimes be the least inconvenient mode in which the nation can tax itself for the support of such an experiment. But it is essential that the protection should be confined to cases in which there is good ground of assurance that the industry which it fosters will after a time be able to dispense with it."

With this theoretical background we may pass on at once to study the recommendations of the Fiscal Commission. Unfortunately the Commission are not unanimous in their recommendations, but to me the points of difference do not seem to be of any vital significance except in one case. The one point where they differ is really of vital importance and it is that while, the majority recommend the adoption of a policy of protection to be applied with discrimination along the lines indicated in their Report, the minority are of opinion that "there

should be an unqualified pronouncement that the fiscal policy best suited for India is 'Protection.' " If to this main recommendation of the minority one of two other sentences out of their minute of dissent were added we will get some idea of their true position. Thus in paragraph 6 of their minute they say " while we agree that the policy of protection should be applied with discrimination we do not think that any qualifications or limitations should be made a condition precedent to its adoption. We recognise that in the efforts to attain a prominent position in the industrial world India will have to pay a price..... The discrimination with which we agree is intended to minimise such sacrifice as far as possible as consistently with reaching the goal which we are putting before the country. We do not subscribe to the condition that such discrimination should be 'along the lines of the Report.' " The conditions laid down in Chapter VII appear to us to be stringent, and will entail considerable delay in giving effect to the policy which we have unanimously recommended, and will not produce adequate results. We share the concern shown in the Report for the interests of the consumer, and we agree that the policy should be applied in such a manner as to reduce the burden on the consumer to the minimum necessary for the purpose of carrying out the object in view. In the present economic condition of India, limitations in the interests of the consumers are necessary, but we anticipate that if immediate effect is given to the policy we recommend, India will begin to grow economically prosperous within a reasonable period of time. As one reads through the limitations laid down by the majority there seems to be no serious difference in the positions taken up by the majority and the minority except that the minority would like to start on an intensive policy of protection at once, while the majority like the minority insist that Government should in order to create confidence in the minds of the capitalists declare protection as their policy, yet actual protection to individual industries should be given after due deliberation. Looking at the very little difference between the apparent position of the two sets of signatories of the Report it seems to me that the chief cause that makes the minority fight shy of the very reasonable limitations (purely from an economic point of view) laid down by the majority is to be found in the lingering fear that these limitations may not like so many other things in the past be used to defeat the object in view. In this connection the following words are significant " we have to make these observations in view of the statement made by our colleagues, viz., that India for many years to come is likely to concentrate on the simpler forms of manufactured goods and these are precisely those in which the United Kingdom has the smallest interest." We earnestly trust that no such limitations will be placed in the path of India's Industrial Development. We have already pointed out that we disagree with our colleagues regarding their proposals to hedge in the policy of protection. We hope this has not been done with the object of keeping India to concentrate her industries on the manufacture of simpler forms of goods." It is on this assumption alone that one can explain the insistence of the minority on having no limitations laid down before hand. Looked at in the light of historical evidence in other depart

ments of politico-economic life in India the fear does not seem to be unjustified. But all the same if protection is to be adopted, and if it is to cause as little inconvenience to the consumer as possible then it should be cold and calculating in its character, as has been recommended by the majority when actually being applied to individual industries. But this does not mean that the whole policy should be rigid and inflexible, and herein comes the importance of the protest so strongly lodged by the minority because they are right when they recommend that the policy should be animated by warmth of feeling for the industrial regeneration of India, and not by the idea of how it is going to affect the interests of the United Kingdom. Such a consideration might have been good practical politics when India was ruled for the sake of the United Kingdom; but during these days when she is said to have got her Fiscal Freedom, and when the declared goal is to train her for Swaraj it seems to be out of place, and an unpractical sentiment on our part. But we have to remember that India is yet not perfectly free, that British interests can yet, if they chose to do so, create lot of mischief in the working of the Indian constitution, and perhaps it was the realisation of things as they are that has led the majority to show so much solicitude for the interests of the United Kingdom, may be just to placate the sentiment of self-interest of the British manufacturer. Be it as it may, as a student of Economics I for one believe that the majority did well in laying down the limitations under which protection should be worked in India, but they seem to have overdone their part and the minority although unjustified in going to the other extreme of having no limitations whatever have also rendered a public service by insisting on the liberal spirit in which the protective policy should be worked. If one has supplied the physical structure, the other has infused the right spirit that ought to animate the whole policy.

So much about the difference of principle, we may now study the outlines of the scheme of protection as given to us by the Commission. They recommend a tariff that "will be a combination of revenue and protective duties. The existing tariff will form the basis of revenue duties and will become progressively modified as the duties on particular commodities are successively determined on protective principles. A duty that has been fixed on protecting principles should not be varied except in accordance with those principles. And the duties imposed on revenue considerations should be open to the Government to vary from time to time on purely revenue considerations.....It is possible indeed that the necessities of revenue may force the Government to put a higher import duty on certain protected goods than is required for purpose of protection. We deal with such a contingency in a later chapter when we recommend that in such cases revenue should be raised by means of an excise duty plus an additional import duty." Referring to this Mr. C. N. Vakil, in the Journal of the Indian Economic Society, Bombay, page 157, in a depreciatory tone remarks: "But we have not yet heard of countries which divide the tariff into two clearly defined parts one part consisting of revenue duties another of protective duties, and this is the ideal put forward by the majority for the Government

of India to follow. With regard to one part of their tariff the Government is asked to think strictly on free trade principles, with regard to another part they will have to think on the principles of discriminating protection on the lines indicated in the Report. The task of watching the details of this complicated and highly unpractical scheme is to be entrusted to an impartial organisation, the Tariff Board." To me there seems to be no difficulty in having such a twofold classification, and if we were to study the fiscal arrangements of different countries we would find such a classification maintained in practice, though it may not be mentioned in the constitution in so many words. Such a classification would be absent from the tariff policy of a country which is indiscriminately protectionist in its policy. If protection is to be discriminate (it may not be discriminate exactly on the lines indicated in the report of the majority), then such a classification as is recommended by the majority is bound to make its appearance in actual practice. The fact that Mr. Vakil finds fault with a recommendation like that, only means that we have still in India a large majority of people who are as it were in love with protection, and to whom any qualifications, however much reasonable in themselves, appear like a red rag to a bull.

Then the Commission pass on to recommend the creation of the Tariff Board, whose business will be to adjudicate cases referred to it for granting protection. They also lay down general principles for the guidance of the Board. Some of these general principles are unexceptionable but there are points where it is not difficult to differ: Thus while they object to "granting tariff protection to new industries" or industries which supply only a small percentage of the total supply necessary to satisfy the demand of the country, I fail to agree as in an industrially backward country like India, with very good prospects for the development of many industries that do not exist at present such a qualification would have a very hindering effect. It is rather unfortunate that the Commission should have anticipated those details which they themselves have recommended for the Tariff Board to investigate before recommending protection to individual industries. This anticipation becomes doubly unfortunate as they insist on protection being adopted in India on condition that it is worked on lines suggested in their Report. Although they realise that in order to decide the question, whether a particular industry should have protection or not it requires a very minute investigation, yet they have allowed themselves to express their opinions this way or that without sifting all the details. It is when one reads through the lines on which protection should be worked in India, that the real nature of the objection of the minority that "it mixes up policy with procedure" becomes intelligible.

However, leaving these matters of detail apart with the above general observation, we notice with pleasure one important point which has not so far received serious recognition from the students of Indian Economic problems. While discussing the methods of agricultural development in India in his booklet "The Consolidation of Agricultural Holdings in U. P.," Professor Jevons after discussing various measures of reforms remarks that "I wish to record my opinion that it is almost

useless to undertake these measures piecemeal. The forces of degeneration are so strong.....that each measure of reform would be successively defeated. Far better results would be obtained by making a combination of agricultural and educational reforms in one district at a time." It is this principle of an all round effort which the Fiscal Commission have done well to emphasise in those words. "But it is clear that the mere imposition of protective duties, however scientifically contrived will not by itself produce that full industrial development which we desire." In recognition of this fact they recommend a number of supplementary measures, such as ; "(1) the extension of primary education, which should include training, (2) the training of apprentices in India, and abroad by making it a condition that whenever Government of India place any large order with a firm one of the condition of the tender should be that the firm undertakes to afford facilities for technical training to Indian apprentices, (3) organisations to make labour more mobile, (4) the modification of the railway rate policy to make it favourable to the industrial development of India, and others of the same kind."

Another important fact that the Commission have done well in emphasising is where they try to impress upon us that protection does not only mean high import duties. It is after all a policy, and the policy may be translated into practice either by high import duties or by protective export duties, or by subsidies and bounties, or by favourable rates of carriage, or yet by right of favourable rates of purchasing and selling and in many more ways. Whether one will be adopted or the other will be decided by the circumstances of each individual case, and the only general principle that could be laid down in the words of the Commission being "that considerations of national economics rather than of economics of individual industries should predominate in all such cases."

Before passing to the consideration of such relatively independent items as the questions of excise duties, and Imperial Preference, I consider it desirable to discuss the use of export duties as an instrument of protection.

Although the Commission admit that a protective export duty benefits the home manufacturer by getting for him his raw material at a lower cost than his rivals abroad, yet they do not wholeheartedly support the idea of using this method of giving protection because "unlike protective import duty an export duty places the whole foreign product at a disadvantage" and this "tends to produce a special feeling or resentment in those countries which use the commodity as raw material," and "because it taxes production instead of consumption." Now both of these considerations are weighty, although personally I am not inclined to attach much weight to the idea of offending other countries, yet one has to admit that if a foreign country buys a very large quantity of a raw material produced in India and if we want to levy an export duty on it, we should do so after thinking as they say twice. Once we should think on the share of that country in the total produce, and secondly on the chances of India's capacity to consume the raw

material if the foreign country diminishes its demand. Here as elsewhere the actual line of action should be decided in terms of national development rather than in terms of goodwill of this or that country be it even such an important country as Great Britain itself.

We can now conveniently take up the question of excise duties, and at once say that while I agree with the general conclusions of the Commission as regards excise duties, I am inclined to say that excise duties should not be levied on things the production of which is receiving protection. The Commission recommend such a policy for revenue purposes only. On this the writer in the *Journal of the Indian Economic Society*, Bombay, already quoted remarks that "whether this is the outcome of a genuine rigid adherence to free trade principles, or of a skilfully concealed sympathy for the interests of Lancashire it is difficult to say. It is evident, however, that the Indian Fiscal Commission was not considering Indian interests and Indian opinion in devising this otherwise ingenious proposal." And there is lot of truth in what he says.

Both the majority and the minority are of opinion that from a purely economic point of view adoption of the policy of Imperial Preference is not tenable in India. But the majority after taking into consideration larger considerations of political solidarity, and growth of Empire spirit recommend that India should offer to Great Britain an unqualified preference, while towards dominions she should adopt "a policy of reciprocity, such as is already adopted by more than one dominion for interdominion trade relations; that is to say preference should be granted only as the result of agreements which might prove to the mutual advantage of both parties." To me the question of Imperial Preference apart from reciprocity is a purely political one, which it is difficult for a cold and calculating student of economics to pronounce any judgment upon and which should be left to the free voice of the Indian political leaders, i.e., the two legislatures.

FOREIGN CAPITAL.

While agreeing with the majority that "the development of new industries should proceed as quickly as possible," so as to cause the minimum of sacrifice to the consumer, I fail to agree with them when they seem to think that this cannot be done unless foreign capital is allowed to come in, and this for two reasons. First of all recent loans raised by the Government of India and the response they have received from the public should be able to tell us that there is an appreciable quantity of floating capital seeking investment. Secondly we should remember that there are ways and ways of securing foreign capital for the industrial development of a country. To begin with we may secure it by allowing foreign domiciled companies to invest their capital here. Capital would be invested in India, but its influence on the prosperity of the land under the condition of protection would be worse than what we see now in the case of railway and the jute industry under the free trade policy. The consumers would have paid in higher prices, and the profits would then as now go out of the country. Then there is the

way that people, with capital may come here from foreign countries, invest it in the development of industries and may live here permanently. There could be no objection to an investment of this sort, provided these people had the right sort of political outlook. If after coming to India, sympathy and feelings of these people remain fixed in their distant homes, and express themselves in preference for foreign labour, in diffidence to train Indian labour, and so on, then certainly the country of their adoption is not likely to get real benefit of industrial development brought about by their aid. To me, however, the best way to secure foreign capital is none of these nor is it that which has been suggested by the Commission, but that of national borrowing through the Imperial Bank in foreign countries, and then its lending to prospective industrialists in India through the same agency. Credit of the Government of India is fairly high in money markets of the world and we should be able to secure fairly large amounts of capital necessary for the development of industries in this land. But the Government should not undertake any other responsibility in this matter except that of lending its credit to the Bank, and the Bank should do all other matters of detail. Industrial Banking is the most complicated part of the most complicated business of the world—I mean banking, and no Government with its other multifarious duties should undertake this difficult task.

We have now come to the close of our review of the Report of the Fiscal Commission and leaving sentiment apart, we feel impelled to say that taking all in all the recommendations of the Commission seem to be inspired with a due sense of things practical. It is all very well to feel strongly when we are asked to subordinate our line of policy to the interests of the ruling race, it is equally easy to indulge in strong sentiments but it is very very difficult indeed to secure your point in the face of strong and dominant clashing interests. The majority have no doubt indulged in persuasive and in some places apologetic language but the reason that seems to have led them to use that language may be found in their desire to win over the sympathy of the dominant race, rather than in any desire to subordinate the interests of the Indian people to those of the people of Great Britain. The fact is there that so far it is the British who are dominant in India, and they can, if they feel inclined, defeat any and all measures of reform, be they in our tariff policy or our currency system or in any other department of life, and by taking stock of this patent fact the majority have only given us an evidence of their being alive to the facts as they are. Why think ill of them, why impute motives where there seem to be none?

FIRST DAY:--TUESDAY, JANUARY 16th 1923, AFTERNOON SESSION

INDIAN TARIFF REFORM.

The Fiscal Commission.

Need for Protection.

BY C. GOPAL MENON, ESQ., F. C. I., A. I. B., MADRAS.

(In the absence of the author, this paper was read by Mr. J. Leitch Wilson.)

An impartial observer of the signs of the times cannot fail to be struck with one idea concerning the findings of the Fiscal Commission, viz., the country's decision in favour of protection. The subject of tariff reform is of national importance at the present moment. It is, moreover, of absorbing interest and the issues, though of a complex nature, are of such paramount importance that they demand long and thoughtful study before any definite conclusions can be arrived at. It is to be deplored that an economic problem affecting the future welfare of our country should have received so little attention on the part of the public. When the Montford Reform Bill was issued, people rushed to express their opinion as to the merits or demerits of the reforms vouchsafed to the Indian public, but that tariff reform which is going to be put into operation before very long should have received so little attention may be due to the fact that high finance is the "*bete noire*" of the public. There is no doubt that the present tariff reform is a subject which requires calm and judicious inquiry, for adjudication by those who have made a study of politico-economic science, substantiated, of course, by practical experience. In any of the western countries such a measure will have caused much political excitement and party strife. It would even be made the subject on which a future election will be conducted. The tariff reform is one of those bloodless revolutions which often take place now and then in the history of every nation and which are often more far-reaching in their effects than many of the longest and most expensive of wars have been.

THE COMMISSIONERS' FINDINGS.

The Commission was asked "to examine with reference to all the interests concerned the tariff policy of the Government of India, including the question of the desirability of adopting the principle of imperial preference and to make recommendations." The finding arrived at is that "we recommend in the best interests of India the adoption of a policy of protection to be applied with discrimination along the lines indicated in this Report." The Report is signed by all the members subject to a minute of dissent by the five members including the president. The minority's verdict is that "there should be an unqualified pronouncement that the fiscal policy best suited for India is protection."

The sentiment underlying the view expressed by the Minority

Report is no reaction against free trade but is only an evidence of the feeling in the country that she should devote her attention to intense industrialism. This may be ascertainable from the evidence given before the commission by all those who are interested in any industry in the country. They all unanimously expressed their opinion that a certain amount of protection is needed for the development of the industries in which they are interested to meet and to protect them from undue competition from the outside world where similar articles are produced under highly organised conditions. Those who favour this view have a very strong argument in the present rapid growth of such protectionist countries, as America, Germany and the self-governing colonies. In the western countries there are even to-day two schools of thought on the subject.

ENGLISH POLICY IN THE PAST.

England had been a protectionist country for hundreds of years. The trade of England and indeed nearly of all other countries was conducted under what was known as the "Mercantile System." Under this system, each country took steps to get as much gold and silver as possible and all expedients were resorted to in order to prevent their removal from the country. This fiscal policy, though it was a policy of protection, differed from the policy proposed by modern tariff reformers. It was not intended as much as a protection of the trade of the country, but as a protection of their gold supply. At the present day the gold of any country is not protected in this manner, but by an entirely different method: *viz.*, by the action of the discount rate fixed by the prominent bank in their respective countries. The mercantile system prevailed in the European countries until the beginning of the nineteenth century. In England during this period some 1,300 articles came to be included in the customs list and the duties upon very many of them were almost or entirely prohibitive. The Corn Laws in England were dated from the year 1360 and a case for reform was brought up several times, but it was not until 1836, a few of the radicals banded themselves with the avowed object of securing the repeal of the Corn Laws. In 1838 an association was formed in Manchester at the instance of Richard Cobden, who not only devoted all his time for the work but was also able to bring to his hand his friend John Bright of Rochdale whose superb eloquence convinced people of the evils of the system. One of Cobden's predictions for the abolition of Corn Laws was that "if England abolish Corn Laws honestly and adopt free trade in its simplicity there will not be a tariff in Europe that will not be changed in less than five years to follow your example." This prediction was not fulfilled as it did not suit other countries to adopt England's method chiefly due to the difference of circumstances and interested opposition. Such is pure history and it is from the past that the present should take lessons and apply them to practical needs keeping in view one's own capacity. A certain section of economists avow that England gained her supremacy during the days of her portec-

tionist policy, and not since the time she adopted her present so-called free trade policy. It is a difficult problem to answer, because, it is difficult to judge the exact influence of all the contributory clauses to England's present commercial and financial supremacy. There is another argument that England did not give up protection until her industries had reached that state of proficiency when they were independent of protection.

REACTION AGAINST FREE TRADE.

With all the talk of a "dogmatic" free trade policy of England, do we not observe her favouring occasionally a policy of retaliation in the tariff system and those who advocated this policy undoubtedly have a very strong argument in the rapid growth of the protectionist countries? Did not the late Joseph Chamberlain in 1903 astonish the world by proposing the adoption of preferential trading between the mother country and the colonies as the only means of keeping the mighty Empire together? The question received the serious attention and was discussed vigorously in every circle of the community in England, from the ministers of the Crown to the man in the street. The subject took such a turn as to involve a conflict between Free Trade and Protection. Chamberlain wanted to work up an Imperial Zollverein, after the example of the German Empire and the United States, with free trade within the Empire and a common protective tariff against the outside world. These are all examples of what a country would do when trade is being imperilled from foreign competition and there is nothing strange in India desiring to shape her tariff policy with a view to protect her industries and commerce. This is what the Minority Report of the Fiscal Commission have in view when they pronounced that they want a definite policy of protection and not any half-hearted measure as is conveyed in the Report of the Commissioners as a whole. The motive of the minority is not a reaction against free trade policy but only one of self-preservation to make India a self-contained and self-sustaining country.

INDIA'S RESOURCES.

It is necessary in a preliminary survey of this nature to define what resources India possesses for the task which she is going to undertake. The area of India is 1,760,000 square miles, with a population of about 300,000,000 of people. There are two clearly defined regions, which possess great varieties of soil and climate. The first is that comprising the plains watered by the great Himalayan rivers, the Indus, Ganges, and Brahmaputra with their tributaries. This huge plain is 1,700 miles across and includes the richest and most populous regions of India. The second great division is the Deccan which is enclosed on all sides by mountains. We have our monsoons; the South-West usually arrives at the end of June and lasts for about four months. It distributes rain over the whole of India, but very unequally, the regions favoured by most constant falls being

Eastern Bengal, Assam, part of Central Provinces and the Malabar Coast. In the remaining provinces the rainfall is uncertain and droughts often occur. India, unlike other countries has enormous potential, but undeveloped wealth, agricultural, mineral and industrial. It has inexhaustible supplies of coal and iron, chrome iron, and manganese ore, copper plumbago, lime, kaolin, gypsum, asbestos, mica soft and hard, wheat, food grains of all description, oil seeds, tobacco, cocoa, sugar, coffee, tea, spices, dye, hemp, flax, fibres of every description. Notwithstanding, she is the dumping ground of other nations. A little fostering protection will help some of these to be converted into manufactured articles, for which there are ample facilities in the country. The few industries which are in existence in India to-day are suffering from foreign competition owing to the dumping of foreign goods at a low price. India's principal industries are those engaged in the manufacture of cotton and jute products, leather, silk, wool, paper, sugar, indigo, tea, coffee and tobacco. Of these the leather, wool and paper industries, the bulk of them, are making no progress and are having only a hand to mouth living. The silk industry is practically losing ground. The only industry which comes into competition with England is the cotton industry and as India is Lancashire's best customer in cotton goods, the progress of the industry is being closely watched. Even here, it is only in grey goods she comes actively into competition with Lancashire. In the cotton industry apart from grey goods there are several other varieties which are needed in India, and I believe even if the excise duty is removed and protection is applied to this industry it will take a long time for Indian mills to come into competition with Lancashire in other varieties than grey goods. Space will not permit me to point out to what extent she could come into competition in cotton goods with Lancashire and how infinitesimally small that competition will be under natural and other conditions even if a small amount of protection is afforded.

NEED FOR PROTECTION.

The tanning and leather industries should be prosperous under protection as there are large supplies of hides and skins and the necessary tanning materials in the country. Apart from exporting raw hides and skins, no attempt is made to convert these into tanned goods. Sugar, match and soap industries are all bound to succeed under protection. There is no doubt, lack of enterprise in the method of manufacture. Attempts should be made to avoid wastage in manufacturing and economy exercised in management. Otherwise protection will be at the expense of the poverty-stricken population.

Another aspect of the question is : Have we not heard of the competitions of such protectionist countries as Germany and the United States in the markets of the world ? The alarm was so great in some quarters in Britain as to make them feel as to the state of the future British industry. These alarmists gave out that it is not that the

British industry was declining, but the prosperity of the German and United States industries were developing in much greater proportion than British and this they attributed as due to the protectionist policy of those countries. These were at least the arguments brought forward by the late Mr. Chamberlain and his exponents of the theory of Imperial Federation for the British Empire. The old proposition that "what is true of one must be true of all," is repeated often as it was one hundred years ago. Free trade may be good to England, but may not be good for India and as conditions and circumstances change fiscal measures and tariff reforms have to be modelled to suit the conditions of each country.

PROTECTION ALONE WILL NOT SUFFICE.

But protection alone cannot advance the industrial and commercial prosperity of a country. We want the technical skill and clever foremen and superintendents of workshops. Our technical educational system must be modified in order that our schools and colleges turn out technological experts who possess the adequate knowledge to conduct experiments in the factories and workshops. These are state-aids which the Government of the country should render for the development of industries. We must also have the enterprise and initiative; apart from big industries to be started, there are several minor industries which, with little enterprise and initiative, we can without much difficulty develop. We are as a nation sadly behind other nations in the matter of enterprise and initiative. In order that a country should become industrially great, we must possess the right sort of education. It is by the encouragement of science, by the technical training and by the diffusion of knowledge that the Government can best aid private enterprise. If people in the country now take advantage of the protection for industries which will be conceded shortly, we can reasonably hope to advance, both industrially and commercially so that we may attain the position which other nations have attained in the matter of industrial development. If, on the other hand, prompt steps are not taken for the realisation of the object in view of the present tariff reform, misery and hardship will result to the people owing to enhanced prices. The object of protection is to encourage home industries by the manipulation of a fiscal system and that will in turn raise home prices. If a temporary rise in prices did not take place, then the industries are not encouraged. This is a necessary evil in the initial stage of a protectionist measure but the people will eventually benefit by the industrial progress of the country. To achieve this object, says Mr. Armitage Smith, "the country will have to rely upon her skill, efficiency, business capacity and energy. She will need to be vigilant, skilful, enterprising and active to meet the desires of her customers at a reasonable price and anticipate their wants."

INDUSTRIAL DEVELOPMENT AND INDUSTRIAL TRAINING.

BY PROFESSOR W. H. MYLES, M.A., UNIVERSITY OF THE PUNJAB.

Never has the question of the industrial development of India been more in the public eye than it is at the present time. The purpose of this paper is not to enter on the thorny question as to whether industrial development on Western lines would, or would not, be for the good of India; nor to enter on the still more debateable question as to whether that development, supposing the ideal to be admitted, would be best brought about by means of a policy of protection. It is rather to point out one essential condition of industrial development that does not, in most discussions upon the subject, seem to have received the attention due to it, and to put forward a scheme that in the writer's opinion must be adopted simultaneously with any policy of industrial development.

The economic student on his introduction to the theory of production and the conditions upon which the productivity of a nation depends, meets in the foreground of his study the three great agents of production—land, labour and capital. They are all of primary importance, but it is possible to lay too great stress upon the group. Later economists from Marshall onwards have laid more and more emphasis on "organization" as a distinct agent of production, and unless "capital" be given the widest interpretation so as to cover "immaterial" agents of production as well as the purely "material," this inclusion is essentially necessary. Many of the errors of the extreme individualist school arose from their omission of this very factor, though it is to be noted that Adam Smith, the master of individualism, is not open to the accusation, for he included "the natural and acquired abilities of a people" in the category of the fixed capital of the nation. List restored the human factor of production to its proper place, and it always seems to me that List's claim to fame is equally strong in this direction as in the better known sphere of fiscal policy. Yet Mill, writing with the work of List before him, was not able to shake himself altogether clear of the doctrines in this respect of his predecessors; it can hardly be said that Mill realised the fundamental importance of immaterial capital, or "organization" if you care to call it such, and much of his dread of diminishing return on the one hand, and over-population on the other, is attributable to this very fact.

Now in the University syllabuses of economic study in India Marshall finds a prominent place—too prominent it seems to me—and yet the salient fact of organization to which he attaches such importance does not seem to be fully realised. The omission is perhaps more regrettable in that it is the factor of production which is most lacking in our midst. We are all familiar with those analysis of the possibilities of production in India, which call attention to its boundless acres of land,

sometimes deficient in water, but which modern irrigation may cause to "blossom like the rose"; its abundant labour, which has often been spoken of as cheap, though India's own representative at Geneva declared emphatically that it was dear because of its inefficiency: and its capital, being slowly unearthed from the hoards of earlier days, and taking advantage to an ever-increasing extent of the new facilities for investment. But in these analysis there is too often a tendency to skip over the immaterial agents of production, or to treat them as quite subsidiary. Now any one familiar with industrial life in the West knows that it depends for its very life-blood on its entrepreneurs or captains of industry. It is their organizing ability, their bold and restless enterprise, which waits not for assistance from the powers above, their power of predicting the future and producing to meet it without guarantees, their inventive genius and their constant juggling with the process of production so as to secure the maximum output with the minimum of cost—these, one and all, are fundamental in industrial development, and in India they are noticeable by their absence. The few individual exceptions that arise to the minds of all of us only serve to emphasise the crying need in this respect before India becomes a great industrial country.

Perhaps our educational system is partly responsible for the deficiency, but I personally feel that a change of outlook amongst our educated classes as to the relative value of the different professions must be the preliminary to change. Many of you here are University teachers. What is the aim of the average student who passes through your hands? I may be wrong in speaking thus of other Provinces, but in the Punjab the average student looks forward to Government service, to the Bar, or to Teaching as a profession. Now without disparaging for one moment any one of these learned professions, you must admit that it is a sad feature if they are to draw off the pick of the brains of the country, and industry and commerce have to depend on those with more limited attainments. One thing that those whose ideal is the rapid industrial development of India should clearly realise is this—that if industry is to have a chance, it must be given its fair share of the very best brains in the country. Production in the narrow sense of the term must come to be regarded by our leaders of thought as an essentially honourable profession, as one to which their sons may go with credit, and as one which from the standpoint, both of the country and the individual, may be taken up with advantage.

While India was a country unknown to me except through books, and Japan was similarly unknown as it still is, I was much struck as a University teacher at home by the different outlook of Indian and Japanese students whom we had in about equal numbers. Both were there to get the best that the University could give, but their intention was to apply it differently. The Japanese student as often as not desired to return to his own country and go in for business in some of its many forms; the Indian student, on the other hand, no matter what else he was doing, seemed always to be reading for the Bar, and the sad feature is that on his return he too often takes the path of least resistance and

drifts into that profession which he took up largely as a side-line during his University course. The profession, no doubt, offers great opportunities for active participation in public and political life, and India's debt to her lawyers in many different spheres of activity is indeed a large one ; but my point still remains that the industrial development of India will necessitate a diversion of brains from these aforementioned channels into that of production in the narrower sense of the term.

There are those who would contend that this deficiency, of which I have spoken, and which will be generally admitted, is a product of the literary type of education which has largely predominated and still predominates in most of our higher institutions. I agree, but only up to a point. My contention is that our University education is good as a starting point even for the man who is going into business life. One of the tendencies, noticeable in Germany and in America before the war, and which has been particularly noticeable in England since the war, is in the direction of looking more and more to the Universities to provide men of broad education and with a general grip of affairs for the higher business posts, instead of depending as largely as formerly on the pushing clerk from below. Harrison and Crossfield, the large firm of exporters and importers in London, who have large connections with the East, have stated to me that this is the policy now being definitely followed by the Company, and the routine work of the business they leave very largely to girls. In this respect it seems to me that England is largely following in the foot-steps of the United States. What has often struck me in my travellings in that land has been the much larger number of University graduates that one found in all departments of business than was the case in England.

This change is partly a product of the growing complexity of modern business organization. Bagehot pointed it out most forcibly when he compared the modern organization of peace and of war. The modern commander of an army rides no longer at the head of his forces ; but in some secluded spot far behind, where the din of battle troubles him not, he follows by the telephone the movement of his troops, and directs and controls their operations. So in the business world—the man who is being wanted more and more, is he who can take a grasp of a broad situation, who can analyse clearly the problems involved, and sheltered from the petty details of management can give his whole time to the question of policy and the path to be pursued. It is here that the wide general education of the University is most valuable, and where the process of working up stage by stage may cramp rather than enlarge the outlook of many who pass through it.

The production of a class of industrial leaders in India seems to be one of the preliminaries of industrial development. Our present University system does not give us the product we have in view. Some may say, with reason on their side, that this is not the function of a University. But what is really worse, the University does not seem to instil the spirit that is necessary. Nor is the product got by sending a number of our best men to those old haunts of learning, Oxford and Cambridge. Colleges of Commerce may strike the imagination of some

as the institution most likely to turn out what is required, but as one who has been very closely connected with the Commercial Department of one of the Universities at home, I very much doubt whether the College of Commerce will turn our Indian student into a potential captain of industry. The training it gives is for the most part a good general education with a distinct commercial bias ; it is no doubt very satisfactory as a beginning, but it has to be very much supplemented.

The best training for the business man is still that which is got in the rough and tumble of ordinary everyday business life. No College of Commerce, and no Degree in Commerce can ever be a substitute for that. The College gives but the groundwork on which to build, and the building must be done in the business laboratory of everyday life. I am one who personally thinks that it does not matter a very great deal what course a student goes through before he starts this practical training. A really first-rate degree course in commerce is to be preferred, but a good Arts course on the modern side would seem to me equally satisfactory.

Now this practical training a student may get in our midst, but what he does not seem to get is that modern business spirit of which I spoke earlier in the paper. It, I feel, can only be acquired by placing a few of our very best young men who have done well in their University courses here in direct contact with the business organisation where that spirit is the predominating feature. We have in the past sent large numbers of our best men to the Universities abroad, and they have returned with much of the "culture" of the west. Let us now, if we are entering on the path of industrial development, put our young men in the position, as far as possible, so that they may assimilate and make their own the business methods and the spirit that prevail where industry is more developed than in our midst.

Japan is often held up as an example for India, too much so in my opinion, but in the above respect Japan has a most valuable lesson to teach us. When she was entering on the path of industrial expansion, she realized that it was essential that she should have men who had been given a chance to shake off the old methods that had prevailed for centuries, and who had assimilated something of the modern methods and the spirit that permeate industry to-day. She realized that she must have men who, on the industrial side, could guide the destinies of her country. For these she looked to her Universities, and from them she picked of her very best and sent them abroad to industrial and commercial firms. How did she get them in ? Because there was propaganda behind the movement, and India could, if she liked, do the same. Indeed, it is one of the bright parts of the Fiscal Commission Report that they suggest that firms, with which the Government of India have large connections, should take in apprentices from India for training. Ordinary apprenticeship would not seem to me to meet the case, nor to produce altogether the type of man I have in view. It would be necessary to come to special arrangements with particular firms to take in selected graduates for, say, two or three years, and to promise to let them see in that time as much as possible of how the business is run.

Let me put the question, are we teachers doing all that can be done both for our boys and for the country? A boy has a really good career at the University here, and we suggest that he should go to Oxford or Cambridge. He goes there, and does well. Back he comes and asks us what he should do. The facetious say to him, "Go and make pins," and he cannot! We want more people coming back to India who know how to make pins and other things. We want them coming back also imbued with the spirit that they can make an opening for themselves, and not with a plaintive cry to Government to try a pin factory as an experiment, and if it is a success, hand it over to private enterprise as a going concern.

My programme is therefore that there should be in each Province an agency of some kind through which we can get properly selected candidates placed with large firms, industrial and commercial, in England and elsewhere. I should like to know if anything of this nature exists in any of the Provinces. There is nothing in the Punjab, and from a conversation I had with Dr. Tannar, Principal of the Sydenham College of Commerce, Bombay, some eighteen months ago, I gathered that there was nothing of the nature in Bombay.

Whether that agency should, or should not be, the Local Government raises a debateable question. I personally am all in favour of a strong Local Committee on which you might have officers of Government, but they should be there in their non-official capacity. It must be a strong Committee; you have got to impress firms at home. But the further it is removed from Government, so much the better. If a boy goes abroad through an official agency, there is much more likelihood that when he returns he will rely upon the Government that sent him there to find him a job. That is the last thing we want to encourage. On the other hand, if a young man is sent through a private agency, and it is impressed upon him that he is going to learn, and that his future career largely depends upon himself, he is much more likely to develop greater self-reliance, and to be the asset that we want on his return to India.

It would be one of the duties of that Committee to scrutinise the industrial possibilities of the Province, and to select the type of firms to which it considers that its young men should be sent for training. To begin with, particularly, it ought to exercise the very greatest care in its selection, for the success of the whole experiment will depend upon the impression our boys make with business firms in England or elsewhere. It will be its duty to reconnoitre the ground abroad, and draw up a roster of firms that would be prepared to take in our boys and afford them every facility for learning the business.

In this connection some individual of the Committee, when in England, should have a personal interview with the managers of suitable businesses, diplomatically explain the idea, and I feel certain that we should get what we want.

It would be the duty of the same Committee to receive regular reports on the work of such learners as it has sent, and it would be in its

power to recall at any time any student who was in any way proving unsatisfactory. At times it would have to be strict. I myself, some eighteen months ago, sent one of my M.A. students for two years' practical training in the Bank of Scotland. He worked for six weeks, and then there came an urgent letter asking me to reply by return as to whether he might at the same time read for the Bar. With my general views before you, my answer can be better imagined than described !

Lastly, there is much greater responsibility attached to sending a student on training of this kind, especially with firms of certain types, *e. g.*, banks and insurance offices, than in sending him to a foreign University. The consequences of his going wrong are so much more serious. I consider that it would be one of the functions of the Committee suggested above to take and to hold, to find, if need be, sufficient guarantees for the good conduct of the learner against his return. No individual, especially of the teaching community, can undertake the liability that would be involved in sending a number of students on work of this kind. It would be all right if firms would themselves enact a guarantee, but as a rule they will not. They will simply say that they take the word of one individual or of the Committee as sufficient guarantee.

So far I have spoken as though the individual concerned would himself bear the expense. He will in most cases get no salary during his years of training—indeed he can hardly expect it. But if the experiment were set agoing, to begin with, through those who can themselves defray the cost of training, the day would soon come when Local Governments might have their attention called to what was being done, and asked to provide a limited number of scholarships for the specific purpose outlined.

There is a cry all over India for greater facilities for industrial and commercial education. All parties with experience agree upon the urgent need. Let us turn out mechanics and foremen by all means, but let more attention be given to commercial and purely clerical subjects; but let us not stop there. Such a programme will not take us far. The political reforms have created a call for leaders in the political world; industrial expansion will make a much greater call for leaders in the industrial world. You may, in your Commercial Colleges, impart the rudiments of commercial education, but you cannot at the moment instil the spirit which will make India industrially great. I have outlined, what I consider, a feasible programme to fill the great deficiency under which India still labours.

In conclusion, there is one "fly in the ointment". It would appear that the day is not far distant when India will enter on a policy of protection, discriminating or otherwise. Protection does not of itself breed a class of industrial leaders. It does not of itself foster a spirit of individual enterprise and initiative, but rather the converse, *viz.*, that spirit of carrying on as things have been done in the past, and relying on Government not to remove the protective duties, or if things come to the worst, to increase them. Further it makes the carrying out of the programme suggested more difficult because we, with one breath,

say that we are to keep out as far as possible the goods of other countries, and with the next we humbly petition our producers of the past to teach us how to make the things we formerly took from them. We need not be surprised if they are not very keen. Even although the ultimate ideal be protection—whether it is the best policy or not, is altogether beside the point for present purposes—we could not go wrong along the lines I have suggested. It is a policy that would be easy to carry out now ; it would be more difficult under a policy of protection. Perhaps if it were tried on an adequate scale, the need for protection might become less apparent ; if protection were then adopted, the country would be much better prepared for production within its own borders ; and even the most ardent supporters of the policy of protection must admit that it is fraught with grave possibilities for evil that are entirely lacking in the scheme proposed above.

SOME ECONOMIC ASPECTS OF DEFICIT BUDGETS.

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The operations of public finance deserve a close economic study because of the important directive effects which the character and volume of public revenue and expenditure exercise on the economic activities of the people. The economic effects of taxation have been closely studied by many writers. These do not concern me in this paper, except in so far as a deficit may be considered to be due to undertaxation. The effects of various classes of Government expenditure are not so widely appreciated, which is regrettable because their directive effects are in some ways more important in the aggregate of results. I find it necessary, therefore, to begin by discussing the nature of an economic deficit, and to follow this with some analysis of Government expenditure.*

In the first place, what is a real deficit ?

We need to be very careful to distinguish between a mere book-keeping deficit, and a real economic deficit. The latter cannot be defined without a careful analysis : but broadly speaking it may be said to be an excess of expenditure in relation to returns from it, *i.e.*, the public benefit secured, such that the accustomed rate of progress cannot be maintained. The point which I wish particularly to bring out is that a financial deficit must not be allowed to produce an economic deficit.

There is no relation of any fixed or predicable kind between an economic deficit as here conceived and to be explained below, and a financial deficit. An economic deficit may be realised even when the ordinary financial accounts show a revenue surplus ; and it is also possible that there may be no economic deficit even when public expenditure on ordinary recurring heads exceeds ordinary revenue. It will generally be the case, however, that a financial deficit tends to produce an economic deficit ; and the main purpose of this paper is to see how this can be prevented. With this explanation, I proceed to examine the nature of an economic deficit.

The Capital Fund.

Economists have been familiarized by the writings of J. B. Clark with the idea of the "Capital Fund"—consisting of all the fixed and circulating capital existing in a country. It includes all public works and property, all usable buildings, all durable goods, whether for production or consumption, and all consumable goods. In a normally

* This paper was given at the conference mainly from notes, and substantial changes in the subject matter have since been introduced.

progressive country the deterioration of capital goods is more than made good by new savings and investment, and the capital fund is constantly expanding, though more rapidly in some years than others. A great and destructive war, on the other hand, may seriously diminish the capital fund in the belligerent countries, and particularly in the actual areas of hostilities.

Besides the "material" capital comprised in the capital fund there is another and human element in the material civilization of any country, of the greatest importance; I refer to the accumulation of knowledge and ideas, such as the technique of industries, which have become public property and conduce, through inventions, new discoveries and improved organization, to a far more efficient application of labour and utilization of the capital fund.

Improved modes of life—rational housing, townplanning, wise and simple living, better health, culture for enjoyment of leisure—increase directly, the sum total of human enjoyment besides increasing the efficiency of the people as workers. All this accumulation of knowledge, established institutions of government and of industry, all these good habits, life and capacity for enjoyment, I must call, for want of a better term, the fund of "human capital." Education is, of course, the great agent for increasing the fund of "human capital;" and public health services are perhaps equally important.

Progress the Normal Condition.

Economists are familiar with what is termed the static condition of a people. Over any period of years the capital fund shows neither augmentation nor decrease: the fund of "human capital" is stationary too. Society remains as it was. Only the population would be growing and standard of living falling, until the pressure on the means of subsistence would bring the positive check into operation. This condition was doubtless characteristic of most of Europe until the sixteenth century, and of parts much later; whilst in India and China large tracts have for centuries been in a static condition, broken only by wars or terrible famines. Since the break-up of the feudal system in Europe, and especially since the agricultural revolution and expansion of trade, followed by the industrial revolution, progress has become the normal state. There was in the eighteenth and nineteenth centuries a continuous growth of accumulated capital, accompanied by a growth of technical knowledge and application of inventions. This was followed in the nineteenth century by a vast improvement of public health, the material resources for which only became available through the increasing wealth of the countries—England especially, others in Western Europe following.

The rapid growth of material civilization in America, followed, and now accompanied, by a rapid expansion of the "human capital" is, perhaps the most astonishing phenomenon of progress ever seen, whilst Japan and many non-European countries have recently started and gathered strength in an economic revolution. In the present age

progress is the normal condition ; and any country which is not augmenting its funds of material and " human capital " will lag behind in the race and become relatively poor and internationally weak.

If progress is to be regarded as the normal condition, it follows that the public finance of every well-governed country must be so managed as to provide for constant progress in these respects. Finance must be found for all that will make for increased efficiency of the population as producers, for improving health, for better education in work and in culture. The normal budget will provide from revenue for building up the capital fund--particularly that important portion (public works of all kinds) which is in public ownership--and for such expenditure on education and public health as it is possible to afford without unduly burdensome taxation. When such expenditure on public works, and the creation of " human " capital, takes place out of ordinary revenue there is effected a compulsory saving of capital by the people as a whole through the instrumentality of the State ; and this should be the normal condition. An economic deficit is the result of a failure of the scheme of public finance to secure such compulsory " saving " and investment at the annual rate to which the country has become accustomed.

Nature of an Economic Deficit.

An economic deficit occurs whenever the rate of growth of the capital fund, material and human is less than the normal rate of growth to which the country concerned has become accustomed, and to which it has adjusted its economic life ; and the deficit is the difference by which the actual rate of progress falls short of the normal. It is impracticable, of course, to define a normal rate of growth with any precision ; but the idea certainly has a firm basis in reality. It is a fact that in every country the population tends to grow, and at a rate depending on numerous factors peculiar to the country. It is also a fact that in every country which has become accustomed to the continued investment of capital in public works and in the expansion of trade and industries, there is a real demand for the continuance of new investments of capital in such manner year by year. Failing such new investment the supply of all kinds of services and goods depending on such investment becomes noticeably insufficient. The truth of this becomes evident when we consider how the cessation of new investment during war-time brought about an acute shortage of railway facilities of all kinds, an increasingly felt want for new roads and bridges in certain parts, and a shortage of cotton cloth and many other commodities largely produced in India.*

*The shortage experienced was, of course, partly due in the case of railways to non-replacement and inability to effect repairs, and in the case of commodities to restriction of the normal overseas imports ; but, after making allowance for this, the absence of the normal annual increment of invested capital in the country remains an important cause of the shortage.

Furthermore, if a country has become accustomed to an extension year by year of educational facilities, or the progress of works and agencies for public health, it learns to expect a regular continuance of the extension of such facilities and improvements. Seeing what has been done here and there, people become increasingly conscious of wants for such improvements in their own localities, for by knowledge and experience they have been educated to want them. When a normal rate of progress is maintained there is a normal interval between the public becoming conscious of such a want and its satisfaction. When the rate of progress is much slackened that interval is greatly lengthened and people become impatient, become acutely conscious of the want. That is the psychological expression of an economic deficit.

Relation of Normal Budget to Progress.

In a country having a stable Government a financial equilibrium is more or less maintained in normal times of peace. When the people are politically conscious and have representative institutions controlling finance the needs to be met by expenditure are uppermost in men's minds: they are debated and finally assembled into a budget. Taxation is imposed to raise the revenue needed to meet this expenditure; and the burden is distributed so as to bear as lightly as possible on all, that is to say, more or less in accordance with ability to pay.

When the desire for progress animates the people, they will demand expenditure for the purpose. Of course the public may be, and often are, ignorant as to what kinds of Government activities and expenditure would be most conducive of progress. In this they need educating; but in any case they will gradually learn by experience. As the public demand for progress grows, the normal budget will come to make more and more provision for the growth of the "human" and material capital fund.

Economic Classification of Expenditure.

Before examining the effects of a disturbance of budget equilibrium, I must offer an economic classification of expenditure, the object of which is to indicate the economic effect of every kind of expense which a Government usually incurs. On this basis there seem to be six major classes of expenditure as follows :-

- (1) **Military (including Naval) expenditure** on defence and internal security. This is a direct drain on the national dividend, and thus retards the growth of the material and "human" capital funds. War is always destructive of the capital funds; at least so far as society as a whole (international) is concerned.
- (2) **Expenditure on the civil administration**—maintenance of law and order, administration of justice, and collection of the revenues. These essential services stabilize the fabric of Government; and neither add to, nor detract from either capital fund, if honest and reasonably efficient. A corrupt

or inefficient civil service and judiciary will often reduce, and even destroy the incentive to work and saving, and thus are detrimental to the capital funds. Underpayment of Government officers relatively to the standard of living to which their class has become accustomed may be largely the cause of the corruption ; and this result of attempting to balance the budget must be carefully avoided.

- (3) Expenditure on the beneficent services, the chief examples of which are public health and education, increases the fund of human capital, and directly in proportion to the efficiency of the expenditure.
- (4) Expenditure on the indirectly productive services increases the fund of material capital, and indirectly also the fund of human capital by creating leisure for enjoyment and resources for maintaining the beneficent services. Examples of indirectly productive services are the agricultural departments and colleges ; technical and trade instruction ; maintenance of roads and other public works in good repair.
- (5) Expenditure on permanent works, such as roads, bridges, drainage channels, public buildings, and so forth. This directly increases the fund of material capital.
- (6) Expenditure on the commercial services, such as the post and telegraphs, railways, irrigation canals, and all public utility services for which fees are charged more or less proportioned to service rendered. These are part of the flow of the normal economic life : and in most cases the state undertakes them either on account of their monopolistic character, or because the risk in investment of capital is too great for private enterprise. Capital is invested on commercial lines, *i. e.*, if it shows a return exceeding the rate of interest at which Government can borrow ; but the fact that Government lends its credit for raising capital is a factor tending greatly to augment the capital fund.

Relative Growth of Different Classes of Expenditure.

Prime importance attaches to the relative rate of growth of expenditure falling in each of these classes. In a normally progressive country all classes of expenditure will tend to grow--- not only absolutely, but relatively both to the general price-level and to population. It is obviously undesirable that expenditure in classes (1) and (2), military and civil administration, should grow, except slowly : and they should certainly grow much less rapidly than expenditure on classes (3), (4), and (5). As the revenue and expenditure on each commercial service should balance, if not show a profit, at least over a series of years, I leave the commercial services out of account.

More important than the absolute or relative amount of expenditure on each service is its efficiency ; and the marginal efficiency of an

increment of expenditure in expanding the service will depend on the average efficiency of the whole service. Bureaucracies have a tendency to over-organize themselves, and by their size and, by the intricacy of the channels of work and threads of control, to lose much in efficiency and particularly in initiative till they function only in response to clamant demands on their attention. Unless subjected constantly to criticism they lose the ideal of service as an object of existence ; and only a great emergency re-arouses it. It follows that an increment of expenditure directed to re-organising, simplifying and re-enlivening a service will at times be far more efficient than an increment devoted to expansion. In fact an increment of expenditure on re-organization, if the effort be sustained, may enable an elimination of personnel to such an extent as to save far more than the cost of the re-organization, and yet gain in efficiency.

Causes of Deficits.

The equilibrium of the budget may be subverted, and a deficit result, from various causes, the most frequent of which may be tabulated as follows :—

Increased expenditure caused by—

- (1) A war, or other extraordinary military expenditure.
- (2) A considerable rise of the general price-level necessitating the increase of salaries of Government servants.
- (3) The gradual growth of expenditure on any or all of the public services, due to prior commitments, such as graded pay.
- (4) Debiting to revenue the cost of urgently needed permanent works, each in itself inconsiderable perhaps, but the expenditure being properly of a capital nature.

Decreased revenue due to—

- (1) Depression of trade.
- (2) Widespread failure of crops.
- (3) Civil commotion.

The remedy must, of course, be adjusted to the cause, and a careful analysis of the cause or causes of a deficit is indispensable. It may be found that two or three causes are acting together, each partly responsible for the deficit ; or there may be a counteracting increase under some head of revenue, without which the deficit would have been larger. The analysis may conveniently be carried out by the graphic method, plotting a histogram of each head of expenditure and revenue for 10, 15 or 20 years back. If plotted on the logarithmic scale* any exceptional rate of increase, or cessation of the normal rate of increase, will be immediately apparent, and the causes thereof be ascertained by an inquiry into the detailed figures.

* For explanation of the logarithmic scale see *Elements of Statistics*, by A. L. Bowley, 2nd ed. 1902, p. 188, or later editions ; and other text-books on Statistics.

Such an analysis of growth of expenditure may be carried out, of course, according to the ordinary budget heads and sub-heads now in use ; and in practice it would be an onerous task to make a new classification of expenditure for the purpose. Yet the analysis cannot be considered complete until it has been carried to the point of separating distinctly from one another all kinds of expenditure which belong to different economic classes, such as the six classes named above (pp. 42 and 43). Only by such a separation is it possible to draw conclusions, as to the economic effects of proposed remedies—whether more revenue must be raised or retrenchment be effected in various services, and if so which, by how much, and by what means.

Such economic analysis of expenditure ought indeed to be the normal accompaniment of budget making, and not be confined to eras of enforced retrenchment. The various heads of expenditure need to be redefined and regrouped according to a classification which has an economic basis ; or at least a second version of the budget should be prepared on the economic basis to accompany the normal budget based on an administrative classification. If this be done Government will have its attention more forcibly directed to the probable economic results of proposed re-adjustments of expenditure ; and the legislature and the public generally will be enabled to judge more easily as to the justification or otherwise of increases of expenditure, or proposed reductions, having in view the future economic welfare of the country. The economic classification would in fact exhibit the extent to which Government was contributing to the material and human capital funds of the country, and promoting material and cultural progress. A true balance-sheet for the country could be prepared each year showing the improvement of its material, vital and cultural assets ; though, of course, to make it strictly true, a valuation of those assets which would be entered at cost, according to the efficiency of the expenditure in producing the intended results would need to be made by statistical and other means.

Necessity of avoiding an Economic Deficit.

The economic analysis of expenditure outlined in the preceding section will go a long way towards discovering whether the country is experiencing an economic deficit or not. As I have pointed out already (p. 39), there is no necessary connection between a financial deficit and an economic deficit, though, of course it is more likely than not that a financial deficit will be followed by an economic deficit as the result of retrenchment initiated on account of the deficit. A financial deficit is, of course, highly inconvenient ; and if not rightly met, it may have seriously prejudicial economic effects. Such effects can be avoided by correct financial measures ; and it remains true, therefore, that an economic deficit, whether arising from retrenchment, or from permitting inefficiency to grow in the beneficent and indirectly productive services, is far more serious than a mere financial deficit.

The correct financial measures for coping with a financial deficit are to carry on by borrowing *from the public* by sale of Treasury Bills, and to fund this floating debt at least once a year by the issue *to the public* of long term loan securities. By this method the financial deficit does nothing worse than add to the unproductive permanent debt of the country.

The worst expedient for meeting a deficit is inflation of the currency by excessive issue of paper or of token coins. Another measure sometimes adopted to finance a deficit is to borrow from a bank or banks, by a fixed loan, or a fluctuating overdraft, or by discounting Treasury Bills with the bank. This method results in inflation of bank credit, and thus of bank deposits subject to cheque; and the effect in raising the general price-level is as bad as inflation of the currency.

On the other hand, when the public buys Treasury Bills there is no inflation of currency or credit, unless the banks freely advance to the public on the security of the Treasury Bills, which they should make a practice of doing as little as possible. The effect of large issues of Treasury Bills on the money-market is dependent on what Government does with the money. If it is immediately banked and paid out from the Government account no stringency is caused; but locking up large funds obtained by loan in Government Treasuries, or in the Imperial Bank, when the uncertainty as to dates and amounts of withdrawal of large sums makes it unsafe for the Bank to lend any considerable part of it, will cause temporary stringency. Government transactions can and should be arranged so as to avoid this result.

The result of funding the floating debt is to transfer the loan securities (i. e., Treasury Bills) from temporary to permanent holders (the bills having become long dated stock or bonds) and thus from trading and financial firms largely to private investors, many perhaps, of small means, and representing all classes of the public. Thus the economic result is that part of the recurring expenditure of a deficit year, which is represented by the deficit, is now represented by loan stock or bonds the annual interest upon which will absorb a small part of the country's revenue in all future years until redeemed. Such debt is unproductive in the sense that it has not been incurred in order to make permanent works which would increase revenue directly or indirectly, nor to increase the "human capital." The interest on unproductive debt is, of course, a burden on the country; but not a serious burden comparatively speaking. A measured judgment would regard the inflation of the currency, or of credit by bank borrowing, as producing economic evils far greater than the creation of floating debt and its subsequent funding into permanent debt.

I would go further and assert that it may be a positive advantage for a country to incur a deficit and the consequent unproductive debt, if that deficit has been incurred by an increase of expenditure on the beneficent services (public health and education) or on the indirectly productive services (such as the agricultural departments).

The fund of "human capital" is thereby increased: and this will increase the efficiency of the people as workers, besides to some extent directly raising their standard of living and capacity for the higher forms of enjoyment. The outlay on education, health and agriculture undoubtedly creates gradually an increased taxable capacity; and probably adds to the country's revenue after a few years far more than the interest on the debt representing the deficit or series of deficits. Expenditure on education and agriculture efficiently applied gives an indirect return at a high annual percentage.

During many years before the war it was not infrequently the case that the German Imperial Government was unable to balance its budget and met the deficit by increase of its permanent debt. At the time I used to be puzzled that this seemingly imprudent finance had apparently no ill-effect on the country which with its rapidly growing industries and mercantile marine exhibited a prosperity and rate of progress unexampled except in America. The civil administration of Germany was efficient at low cost—only its army was a great burden—and the beneficent and indirectly productive expenditure was also efficiently made, so that it doubtless yielded a big annual percentage of indirect revenue. Hence promoting and extending the beneficent and indirectly productive services, even though it led to the necessity of borrowing, was in every way good policy.

The ground is now clear for me to draw the conclusion to which this paper is directed. I have shown that every normally progressive country becomes accustomed not only to the idea of progress, but to some normal rate of actual progress which is approximately maintained from year to year. Only in war-time and when finances become seriously deranged is this rate of progress checked. I am not sure that it is good policy to check this progress even in war-time by curtailing the beneficent and indirectly productive services—certainly not unless the enemy's pressure necessitates a very heavy drain on man-power. I am quite clear, on the other hand, that nothing short of a tremendous war should be allowed to interfere with the country's normal rate of accumulation of "human capital." To retrench expenditure on the beneficent and indirectly productive services merely because there is a prospect or certainty of a financial deficit is deliberately taking an action which will produce an economic deficit. As I have tried to show, an economic deficit is the real thing: something which must adversely affect the country in the near future, and by its cumulative negative effects, also in the distant future. An economic deficit must be avoided, therefore, even at the expense of incurring a financial deficit.

Economies should be begun by an overhauling of the civil and judicial administrations, and by reducing military expenditure by more efficient organisation. Whilst economies are being realised in these directions additional revenues may be raised by taxation, until, after two or three years, perhaps, the budget may be balanced again. In the meantime financial deficits will be incurred, and these must be

funded into permanent loans. This may be done without misgiving, however, if the financial deficit is not large in proportion to the annual expenditure on the beneficent and indirectly productive services : say, not more than one-half of such expenditure. In India, the finances of the Central and Provincial Governments must be considered together for this purpose. In any case it is not the beneficent and indirectly productive services which should be stinted for money. Let them be re-organised so as to secure greater efficiency for the expenditure incurred ; but to reduce this branch of expenditure so as to impair in any degree the service rendered, is bad national economy. In some directions, *e. g.*, in public health and agriculture, additional expenditure would prove after a few years, so greatly remunerative to the country, that it would be sound economy (and therefore, sound finance—for the greater includes the less) deliberately to borrow to finance them, whenever ordinary revenue, after due retrenchment of the least necessary expenditures, is insufficient to provide for these services.

Finally let me safeguard myself by saying that nothing in this paper is to be interpreted as condoning a legislature or administration which fails to balance its financial budget. To go on incurring financial deficits year after year will add seriously and unwarrantably to the unproductive debt of the country ; and strenuous efforts ought to be made by economies in administration and raising additional revenue to avoid this. Whilst deprecating financial deficits, however, I have been concerned to point out that there is the likelihood of creating a worse evil by any kind of retrenchment which will tend to produce an economic deficit. This last must be avoided even at the cost of incurring financial deficits during the period necessary to bring the country's finances once again into equilibrium.

A certain amount of discussion, principally on Fiscal Policy, took place during this Session. It was not reported.

GARDEN PARTY :—At 4-15 p.m. the members of the Conference attended a garden party given in their honour in the Town Hall grounds by the members of the Reception Committee.

SECOND DAY :—WEDNESDAY, JANUARY 17th, MORNING.

EXCURSION TO RAILWAY WORKSHOPS.

Members of the Association assembled at the University Hall at 9-45 a.m. and proceeded in motor cars, kindly lent by members of the Reception Committee and others, to the Railway Workshops, Moghulpura. They were conducted over the Locomotive Workshops and the Carriage and Wagon Workshops by the Officers in charge. At 12 noon members returned to Lahore.

SECOND DAY :—WEDNESDAY, JANUARY 17th, 1923, AFTERNOON SESSION.

THE NEW ECONOMICS AND THE EASTERN OUTLOOK.

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There is a growing recognition in the west of two important limitations of modern economic science. In the first place, economic principles have not progressed with the recent advances in biology and psychology ; they have remained more or less a blend of hedonistic psychology and utilitarian ethics. An out-of-date associationist psychology is still the assumption of modern economic analysis. The psychology of motivation, of individual and social behaviour is still inadequately recognised in economic theory which concerns itself with the working of one human motive, and is apt to forget those external aspects of human psychology, which represent man's manifold reaction to a concrete environment. The newly developed instinct psychology decidedly exhibits a tendency away from intellectualism and the interpretation of conduct by an enlightened self-interest. Economics, however, still bases its analysis on the explanation of behaviour by rational motives, revealed by the logical introspection of the older psychological school. It has thus reared up a system on a logical method of investigation which is now obsolete and has taken only a fragment of real living man and a distorted shadow of commercial economy.

This limitation in method and analysis is as a matter of fact associated in the age of steam and iron with the ideal of mechanical or geometrical as opposed to vital or purposive efficiency. This has sought quantity rather than excellence derived from individual variations in production and consumption, and repressed some of those vital and perennial instincts and impulses which are conducive to the development of personality as well as of an all-round social well-being. Such repression has led to the disturbance of the economic equilibrium in a wide-spread industrial unsettlement and unrest ; and it is the aim of post-war economics to establish industrial peace as well as to correct that divorce of industry from art and from creative activity, and from the human and personal note without which the finer cultural developments of personality and humanity are impossible.

It need not be told that we have now come to recognise that economic efficiency exists in virtue of and in subservience to an all-round social and individual well-being. But this tardy recognition awaits elaboration in spite of the achievements of socialism, both in economic theory and economic practice. The post-war scientific industry has been shaping a programme for the satisfaction of those vital instincts and standards hitherto repressed in the era of machine production. But little attempt is made to take these into account in economic theory. The parental and family instincts have received little recognition from the economist in his calculation of the standard of efficient subsistence. In the theory of value, the cost of production has not taken into account the element of artistic workmanship as entering into the quality of the product, while in the demand for commodities, the estimate of utility has missed the value derived from the satisfaction of aesthetic impulse. The theory of production has ignored the instinct of constructiveness or creativeness which infusion with the instincts of self-expression and mastery are to-day becoming manifest in the attempt of the labourers to seek control over the industrial management. Our expanding social sympathy and the herd instinct similarly demand the emergence of new economic concepts such as co-operative productivity and ethical competition, which mark the transition of the economic process to a biological as well as to an ethical plane. Lack of co-ordination indeed characterises economic analysis which cannot lift the problems of production and distribution from the merely mechanical and physical plane. And in the exclusively mechanical point of view how easily and complacently the elements and factors are separated. The economic processes should not be looked at from the point of view of the employers or of the employees alone, as has still been the wont of modern economics, neo-classical or revolutionary, but should be broad based upon the fundamental values of concrete human life. Important applications have been recently made of physiology and psychiatry, seeking to bring about an increase of efficiency and welfare of the workers. In business sale and industrial management, in lessening industrial fatigue and in measuring intellectual abilities, the role of the consulting psychological examiner is gradually recognised by the industrial plants, which are coming to take into account the efficiency virtue of attending as strictly to their human outgo as to their human intake; of even selecting workers on the basis of natural fitness and considering the problem of promotion upon lines of vocational psychology. Clinics and hospitals are specialising on the treatment of industrial accidents and diseases, and the study of diseases in their relation to occupational conditions. The concept of "mass" medicine, sanitation and social welfare has received special emphasis during the war; the sociological view of industry is gaining ground, but all this has failed to change the traditional approach to economic theory, which was fixed by the Ricardian economists who wrote and flourished in an age which had small responsibilities for its great undertakings.

There has certainly dawned a conception of the complexities and perplexities of the psychological and technological factors of modern

industry, and of the differences in the calculus of production they bring about, but economic analysis remains still satisfied with the presentation of the simple formula of Land, Labour and Capital. Similarly, the theory of distribution still ignores not only the interdependence of the factors of production but also the costs of maintaining their constant flow which are the first charge of the industrial establishment. The deficiency has been brought to the front especially in the theory of wages. The post-war social conscience is demanding fair and living wages for all grades of labour as a matter of practical economic policy and legislation. But theories die hard. They are like the demons of the Ramayana who fought on the bellies when their hands and their stumps were off. The theory of wages still clings to the conventional concept of marginal or specific productivity of labour which does not adequately recognise the fact that labour as an agent of production must not show an ebb and tide but a regular and constant outflow and inflow. And this is possible only when the industrial plant recognises its responsibility towards the renewal of labour as a group in the productive process. The dynamic concept of economics refuses to be satisfied with anything less than a complete recognition of the above factor. This implies, again, a transformation of the economic concept of the standard of life to an ethical and normative concept, demanding the co-operation of each class involved in the productive process for the determination of the costs of maintaining the workingman's families in different regions, kinds and grades of employment. Fair wages should be determined in theory not merely with reference to local conditions of employment in specific regions and occupations but also with reference to the profits of the industrial establishment as a whole and as part of the national system of production of which labour is an integral part.

Modern economic unrest all hinges upon the fact that the high cost of living, an after effect of the war, has encroached upon the labourers' means of subsistence : and unless the industrial establishments take upon themselves the responsibility of the recoupment of labour as a productive group production will be paralysed. This is specially true in the case of the present phase of industrial transition in India. Labour in the east in our mills, mines and plantations has not yet weaned itself from rural and communal standards, and has especially been showing symptoms of a morbid pathology which should be treated in a sympathetic spirit that must seek to cure the ills of labour in an alien environment. The east has still preserved certain vital values and standards, which may yet be utilised in a saner and more righteous industrialism. We are gradually witnessing the emergence of a new industrialism which is based on the recognition of human values and standards, but this has been as yet unaccompanied by any real changes in the approach to economic theory.

In no other aspect has economics ignored more the standards of the east than in its urban predilections. In the east agriculture is fundamental, the source of livelihood for three-fourths of its population, and its social values are duly recognised though at present the tendency to subsidise urban development at the expense of agriculture has begun to be manifest as in the west. Both in Great Britain and the United

States of America, nearly two-thirds of the people live in the cities and towns, and the movement to the city had proceeded apace. The low birth rate and high mortality as well as physiological deterioration of urban populations mean a continuous deterioration of the race and of the level of civilisation. The war has taught that the subjection of agriculture to crises due to urban profiteers represents a drift too far in the wrong path of urban parasitism, and there has arisen an appreciation of the values of agriculture, its richer rewards of satisfaction for the normal human instincts, and its larger outlook to the progress of the race. Economics has been the formulation of urban interests and strivings, which have always exploited each other, giving us the picture of mutual conflict. To economists land has been a mere agent of production, a form of property or wealth as affecting industry and taxation, and not as an environment within which is set in harmonious setting the normal life of civilised man, a field for the exercise of the instincts connected with home-making and constructiveness, which have played the primary part in developing and maintaining civilisation. The want of perception on the part of the economists of the relations of agriculture to other forms of human activity has made the science so barren of results towards eugenic and eupsychic reconstruction; and nothing will tend more to bring about practical adjustment of human relations and activities than the re-orientation of the rustic, *i.e.*, the concrete biological, human-interest point of view. Even socialism has adopted the wrong psychology in relation to land. Fed by the passions of the landless proletariat, socialism has emphasised the abuses arising from urban land monopoly, and proposes even to take away land from farmers, and control it like an "industry" from the city. The repression of such a normal instinct as land-hunger has caused mob-outbursts, while the attempt to establish urban proletariat dictatorship over agriculture has wrecked farming and urban manufactures in Bolshevik Russia. Thus has abstract reasoning set at naught imperative human and social values. An inter-dependent system of rural and urban economy and exchange can alone maintain the structure of civilisation. The rural community movement and the co-operative organisation are thus in the forefront of social programmes to arrest the disintegrating tendencies of urbanism. The normal balance between agriculture, manufactures and commerce has been disturbed everywhere by the action of mercantile rings and syndicates who speculate in crops, heedless of the requirements of food consumption of the agricultural population. Commercial parasitism is seen in its worst forms in tropical regions where abundant cheap labour is utilised by white capital with a maximum of commercial activity and urban profit. Rural progress starts from rural self-sufficiency and consists in a rotation of multiple crops, while one crop system even while it leads to over-production does not lead to the satisfaction of the manifold needs of a relatively simple agricultural community. In one crop systems of agriculture as in tea, coffee, cocoa, jute, rubber and hemp plantations in the tropics we find a close approximation to factory methods and regulation along with the rise of slums

and sweated labour even in the midst of a sparse population. The one-crop system in Africa and Asia has been an agency of oppression and a cause of agricultural depression, and agricultural crises and famines show the dangers of urban exploitation. Indeed the acute problems of inter-racial economics connected with the exploitation of the tropical and sub-tropical regions arise on account of the disturbance of the normal equilibrium between agriculture, manufacture and commerce. Economics ought to appreciate better the general need of better relations between urban and rural interests. Civilisation must conserve the fundamental educational values of agriculture.* But economics entirely overlooks them, and in its emphasis of urbanism ignores many other elemental instincts and deeper satisfactions of human nature.

In an admirable analysis of contemporary economic thought, Professor Fetter has recently shown the limitation of what he terms price economics, which has very tenacious roots and sprung up vigorously in the writings of authors where it had been blasted leaf and branch. He examines especially the dilemma of Alfred Marshall, the influence of whose book on economics teaching in India has not been quite healthy as encouraging an unreal and speculative outlook. In his price economics, Marshall is a faithful guardian of Ricardianism, though the human element evident in his enquiries and digressions is perhaps the firmest foundation of his reputation in spite of his eclecticism in matters of principle and his apologies for the sophistries of Ricardianism. The neo-classicists still talk Hamlet-like with the skull of an effete Ricardianism on the one hand, and the spectre of the economic man on the other. Problems of banking and currency, of price fluctuations and crises may be expressed in monetary or mathematical terms but they touch only the fringe of the real economic interest. For certain purposes averages and indexes may be absolutely useless. As a statistician observes, an average or an index cannot be used when the exact wage conditions of an industry or a locality is the fact to be ascertained. But for the study of the broad tendencies, an average still represents a very convenient method and when the tendency studied applies to many industries and many localities, nothing can supplant an index number. It must also be remembered that averages and index numbers should be applied not merely to the study of the world of labour as a whole but also more usefully to the investigation of wages and hours of labour in different occupations, localities and grades of employment, even as the new economic psychology should obtain its data from the variety and heterogeneity of types of labour and its behaviour, and their relation to the technological conditions of particular industry. Thus the average and index have and must have reference to one of the important issues of a concrete economic environment and its diverse and specific reactions on man and his wel-

*For the educational values of agriculture see O. F. Cook's "City and Country," and "Journal of Heredity," March and April, 1921, and my "Foundations of Indian Economics," Conclusion; and "Principles of Comparative Economics," Chap. IV, Vol. 2.

fare. The mathematical and the statistical method in order to be useful must shoot forth tendrils of human tendency; and, indeed, the new method must elude a graphical or mathematical representation inasmuch as human motives and tendencies cannot be measured quantitatively because of their element of uncertainty, and of the qualitative difference from the standards of measurement proposed. Even if we admit the measurability, these would have to be regarded as functions of such a large number of variables that any exact calculation will be rendered impossible. The fundamental basis of the new method will be the principle of adaptation, which being the essence of all economic tendencies, exhibits a manifold variety in diverse economic groups and situations. The conventional method of treatment is but an instance of geometry nibbling at the skirts of living issues. The relations of men to goods and to their enjoyment, the choice of industry and of profession, the satisfaction value derived from production as a creative activity and from consumption of material goods as a mode of enjoyment, social and individual valuation, the concrete economic situation with its complex processes and phenomena and their reactions on man and his motives and welfare, these and other problems which gravitate round the very centre of economic interest cannot be moulded in a Procrustean bed of classical or neo-classical formulæ, averages or indexes. In no other age, indeed, have economic theories been so much discredited and distrusted as during and after the war because of the obstinate attempt to interpret concrete problems and issues of life in terms of mechanistic valuation. They have been regarded as inadequate by administrators on the one hand, and abstract and dogmatic by the revolutionaries on the other.

Its effects have been no less harmful than that of the metaphysical theory of the state as propounded by German political philosophers. The abstract concept of the economic man, empty of content, clothed with the form of rationality the demands of competitive industrialism, the nineteenth century phase of western economic revolution even as the Hegelian theory of political obligation latterly came to justify the autocratic demands of the Prussian bureaucracy. The finalism of economic abstraction, which has found its modern champion in Marshall and his school, has been associated with a gospel of duty, separated from empirical purposes and results, which has gagged the vital impulses and values of individuals as well as of society at large. British economic metaphysics, if I may coin the term, fares no better in this respect than the post-Hegelian political philosophy; both set up as realities states and social economic laws impersonal and alien to, and lording it over the deeper and the dynamic phases of human life. And here again the corrective would be as in the case of the German idea of the state to go back to the realisation of the wholeness and completeness, rather than the unity of the group. And this realisation will bring in its turn the recognition of the group as a dynamic and integrative reality or the body intermediate between the state and the individual which will be the bedrock upon which new economic thought must stand.

The root fallacy in economic theory lies much deeper. Economic analysis has not as yet weaned itself from the obsession of the Darwinian theory of competition and natural selection which has made much of the competitive system among animals and neglected the co-operative system in organic evolution. This has strengthened and been strengthened by the older interpretation of individual behaviour by rational motives. Indeed both these strands of thought are hardly discernible, in the web of economic individualism, which the economists have woven and which has cast its spell over every field of human endeavour. That spell has now been broken after the strife and unrest which followed the unregulated development of capitalism and financialism with its inevitable nemeses of individual and social revolt. And to-day in the west we see tentative experiments of group formation which seek to check the evils associated with the centralised absolutist structures in polity and industry. But co-operative production has ceased to progress while organised unionism subordinates co-operative political lines to class interest and practically abolishes the older political order. Guild socialism and syndicalism are to-day each loudly advocating schemes of re-organisation on the basis of the group organisation of the economic life. In all these schemes of industrial reconstruction, however, the inherent rights of groups are asserted and emphasised in the same way as the natural rights of the economic individuals of the *laissez faire* days while in the attempt to bridge the gulf between the labourer and the Capitalist, the unskilled proletariat and the specialised worker, the social strife is repeated in another and perhaps a more extended field by ranging the forces of production against the army of consumers and brain workers. This will be the inevitable result of adopting the syndicalist plan of the substitution of the economic control of producers for parliamentary control by the consumers. The guild socialist's notion of two states is similarly inadequate for it does not present a practical solution of the difficulties that will arise in case of the conflict between the federation of trades and guilds on the one hand and the organisation of the consumers on the other.

The new economics must base itself on a more adequate theory of group-life and relations. Guild socialism and syndicalism break up the economic man into divergent and conflicting fragments which refuse to reunite in the political order. Socialism invokes the all-obtrusive authority of the state, with its inspection and inspectors, for compelling their co-operation in the exercise of the general will of the community it represents. Indeed all these movements originate from a vicious hypostasis of man and his functions ; only the calculating and hedonistic man of the classical days has yielded his place to an aggressive and intimidating economic man. The new economics will avoid these fundamental errors and base itself on a new type of group-life which takes into account the whole man and fuses any divergent and conflicting interests by placing the individual in the communal centre and the communal interest in the centre of the individual life. It will develop concepts of man as an evolving social being, who satisfies his needs by complex social co-operation and whose activities are not so mechanical

as the theory of competition assumes. These spring from the deeper and more elemental impulses, which determine economic standards and institutions and place the life economic in a harmonious setting of the collective life of the community. Economics will thus satisfy the inevitable and growing demand of the corporate social personality of man, so much repressed by the modern economic organisation. Indeed we are witnessing to-day far-reaching changes in the economic organisation itself. Industry is bound to be co-operative and creative in a much fuller measure than we now imagine. The future does not belong to State-socialism, for we already see a movement in the west towards the delegation of the authority of the state to the great trade unions. The nationalisation of industry in the phase at present before the industrial leaders has obvious difficulties. Yet through socialism and syndicalism, Guild socialism and organised unionism the west is steadily approaching towards the new industry and the new society in which the industrial groups will be better oriented and there will be neither any industrial compromise and forced acquiescence resulting in strikes and lock-outs nor any dissociation of the groups involving economic and social anarchy.

To-day the new group psychology, the new ethics, the new politics and the new jurisprudence are all based on a new conception of modes of association and of integrated individuals acting in groups. They are all giving up the tattered garments of the nineteenth century figment of the isolated man though owing to an imperfect conception of synthesis the sectional view of the social organism is reappearing in other guises. Indeed the whole anti-intellectualistic tendency and the trend of philosophical thought towards Pluralism have swept away the basis of that logical abstraction on which economics still rests. The re-instatement of man's composite personality and the healthy and the progressive group life and development insistently demands more adequate and correct economic concepts. This demand is being met in other humanistic studies, but economics still obstinately refuses it.

But a far more important defect in logical analysis arises on account of the neglect of wider cultural groups or types that comprehend the entire life of races and peoples other than the purely Eur-American whose rich, social and economic experiments have no less a significance in the evolution of world life. Economics has not hitherto sufficiently taken into the account diversity of environments and the variety of life-schemes, and economic values of cultural groups and regions, and different social and historic series in different environments. The impact between the east and the west has in recent years given birth to the sciences of comparative ethnology and jurisprudence; the types of communalism in Asian polity have been an eye-opener for the western student of political evolution, while the economic organisations of the east have no less a significance for economists. Social and cultural Anthropology has come to discover a variety of social values and life-schemes but economics still clings more or less to an analysis of western social history. The normal type of evolutions are furnished by the social history of Western Europe chiefly the phase known as industrialism, and all economic forms

and institutions which do not conform to it are regarded as primitive and rudimentary. The influence of conditions which differ by their quality, quantity and order of succession are thus ignored.

Confining ourselves strictly to the sphere of economic forces and institutions, we find in India a differential level and gradation of wages, which is not maintained by competition but is customarily adjusted to the standards of subsistence that take into account the needs of the family and the conditions of craftsmanship in our village communities and different classes or castes of labour. The Indian agrarian organisation has similarly rested on the basis of the association of the peasant with a homestead, so far as possible a hereditary one, and a few acres of land. Accordingly, the family instinct of the Indian for the fixed homestead and appurtenance of land has prevented the rise and development of the economic rent as a separate and separable share of a landlord, being merged in the farmer's earnings, or the communal share thereof, and has given to Indian rent the character of revenue or assessment for protective services rendered whether by the State or the village community, or some constituted local functionary. The strong communal tie has also imposed certain limitations on the individual ownership and use of land by emphasising communal rights and duties. But the changes brought about during the dismemberment of the Moghul Empire and the importation by the early British administrators, brought up in the school of Bentham and Ricardo, of individualistic ideas of property into Indian land revenue settlement have superseded the old Indian notion of rights of different grades possessed by different classes of the community in one and the same land. These have introduced landlordism with proprietary rights as well as the free transfer or alienation of land, which was not previously allowed except with consent of the family, the village community, etc., and have created the characteristic phenomena connected with economic rent. More alarming is the emergence of a class of land labourers, the counterpart of the wage-earning proletariat of the West, who fill our mines, factories and plantations. The fast increase in recent years of this class in some of the provinces is a problem alike of the administrator and the economist on account of the social disintegration it is associated with.

But it is not merely the social tradition which has given a characteristic mould to eastern economic organisation that has been ignored; other formative factors, such as the geographical or climatic, have been equally lost sight of. The scale of consumption, for instance, is adapted to a particular geographical environment. The true theory of food values can thus be formulated only after a comparative investigation into the dietary of different peoples. The level of the nitrogenous equilibrium is different among different races. Certain races have lived and done well with small starchy and sugary food. The importance of the natural organic salts and vitamins is also not sufficiently recognised. If we have the right balance of these, we may need less protein and less calories. Again, many other factors are to be taken into consideration, besides the amount of body weight, climate and so forth. The very

limited dietary of the Chinese and the Indian suggests that while not condemning altogether the orthodox theories of food values, at least as regards the body-building foods, and the natural salts and vitamins, we may be prepared to find that a far smaller amount, at least of protein and of the calories, will suffice provided that certain other conditions be fulfilled.

In India clinical researches tend to show that the level of proteid consumption which is sufficient for healthy subsistence and normal efficiency of an adult stands much lower than the same level for the European adult, being 60 to 70 per cent. of the latter's requirements. This has important bearings not only on the nature and standard of our consumption and nutrition but also on the conditions of employment of labour generally. Our metabolic changes and the processes of wash and repair connected with cell storage and cell discharge, necessitate not intense and intermittent spurts of energy but slow, steady leisurely work. This is partly also the character of Mongoloid consumption and metabolism. Accordingly those lines of manufacturing industry or types of organisation of labour which require long hours of steady, equable work and admit also of leisurely disengagement at intervals are peculiarly suited to the Indian labourer, who has been known to beat his European compeer in such forms of labour in the actual history of British Colonial development. In the recent history of factory industries in India we have too often witnessed the deterioration and degradation of labour, due to the violation or neglect of these primary conditions, and the universal complaint of mill-managers regarding Indian labour are traceable to the instinctive efforts of the labourers to correct the maladjustment in the fields of biological and sociological adaptation alike. This is also responsible for the development of the world's worst slums in our mill-areas, the seedplots of vice and disease, where the sanitary dangers of excessive agglomerations of population have been accentuated by climatic conditions of heat and moisture though our climate itself provides natural remedial agents like sun and rain, if only the plan of open-air and out-door life could be imported into our close-built *bustis* and *chawls*. Examples of economic and social maladjustment are too numerous to mention. A process of substitution, super-imposition or imitation is manifest in such phenomena of economic transition, characteristic of the East, as the disparity between rural and urban economic standards, the decline of cottage industries, the system of explorative advances, rack-renting and non-occupancy tenancy as well as the development of city economy and exchange independent of and sometimes antagonistic to agricultural life. Abnormal phenomena are those of the employment of forced, penal or decoyed labour, condemned to work in insanitary mines and noxious plantations, excessive ruralisation, a characteristic of economic backwardness or excessive urbanisation, a characteristic of economic parasitism, or again, the control of currency by capitalistic and financial interests. More important politically speaking are the phenomena of conflict of economic types such as those of the prohibition of immigration, or of free imported labour of black, brown or yellow stocks as in

America, Australia, East and South Africa or the forced reservation of vast areas in different continents. Asian labour which has taken a prominent part in the early development of the Colonies is now sought to be excluded on grounds of political expediency, and the economic argument is advanced that it tends to lower the standard of life and consumption of the European labourer though the latter is higher than the requirements of the region. But the claim of the Chinese, Japanese and Indian labourer to participate in the reclamation of Central and Northern Australia, of the Bantu races, supplemented if need be by the Indian stocks, to convert the wildernesses of Central and Eastern Africa is the claim of nature adjudged by science and ratified by humanity. And if international economics perpetuate the demands for the open door and the claims of industrialism to exploit the tropical regions of the East, the banged door in the West must be thrown open, and the claims of the Indian agriculturists, miners and traders in South Africa and America, and of the Mongoloid peoples of the Central Asian Steppes to take part in the pastoral and agricultural development of the Canadian and Alaskan wilds must be recognised. Cognate in nature are the phenomena which arise in the tropics out of an ill-regulated intercourse between rudimentary and advanced economic types, which has brought about the deterioration of white stocks as well as demoralisation and suffering and sometimes slow extinction of black peoples. Nature has decreed that human evolution should include a colour scheme which is an essential factor in the adaptation of man to his surroundings, and which is an outward and visible indication of his fitness for life under certain geographical conditions. And the time has come for international legislation and supervision to ratify the judgment of nature. In protection and segregation, in reserve and assignment to locations of particular races, in shut door or open door, the problems should be approached in the light of a scientific humanitarianism. This necessity will be felt in spite of the gradual and increasing control of industrialism by labour, for whatever promise international socialism may hold out, even groups of labourers are ready to exploit weaker groups of workmen. The new imperialism will recognise sooner or later the necessity of international control and supervision to protect the rights, liberties and welfare of coloured labour, and to revise land and trade policy in the plantations so that the social organisation may evolve unimpeded in the mutual adaptation of stock and clime. Railway, mining and trade rights will be secured by concession companies, and loans, national or international, will be advanced, so that the economic education of the immature or less advanced races of the world will proceed apace. And the benefits of such economic intercourse will be not merely material. The Indian and the Chinese communal consciousness, and its works and experiences will be utilised in a new industrialism that will supply the driving force and initiative to the old communalism and re-educate and renew it by the schemes and methods of group organisation now being advocated in the West. The implied socialisms and humanisms and the variety and vitality of group-life in China and India will furnish valuable data for the present industrial

reconstruction on the West, even as agricultural and industrial co-operation, and self-government in industry, according to the guild-socialist or syndicalist plan will be useful in the revival of the villages and the organisation and federation of industrial communities in Eastern communalism. Thus it is that there will emerge a true world scheme of economy, in which superior and backward peoples will help one another in the exploitation and distribution of the world's material resources and the moral resources both of the West and the East will be utilised in new economic and social experiments for bringing peace and harmony to a discordant and distracted humanity. It is this end that Comparative Economics will have in view, and it seeks to achieve it not only by an investigation into individual and social motivation as impelling economic activity but also ascending by a wider synthesis of life and history into the divergent economic values of different cultural groups and regions as members of the economic federation of humanity

DISCUSSION ON DR. MOOKERJEE'S PAPER.

MR. BHATEJA after Dr. Mookerjee had summarised the contents of his paper said that he failed to understand why Dr. Mookerjee should have selected the Orient as the custodian of the science of group-life, and pointed out that the whole history of Russia was a striking illustration of a country which managed all economic and political institutions on a group basis. He pointed out that group-life existed in Germany also. He then went on to say that co-operation did not begin in India but in Germany, and he showed how it also flourished in France. Referring to village Panchayats he said that these institutions could not possibly flourish unless new life were infused into them and that practically meant converting them into new institutions. Finally he said that he failed to understand how a system of Indian Economics or Oriental Economics could be built up on local doctrines, local ideas and local theories.

DR. MOOKERJEE by way of reply said that a complex question had been introduced about the difference in group-life organisation as between India and the West, and pointed out that the history of the 19th century economic and social life in the West had been a history of over-centralisation. Again the Industrial Revolution had brought with it a scheme of life based on economic individuality as a result of which all those customs and usages which existed in the old village communities had been brushed aside. He regretted he could not explain in detail the various points raised in the discussion as he had to run for his train.

MR. KALE in concluding the discussion said that while recognising the existence of village groups they must remember that these groups had become disorganised, and he very much doubted whether the old communal or group spirit was likely to be of much use in starting new economic and social institutions. Referring to the case of Panchayats he said that the Minister of the Local Government in his Presidency found it very difficult to bring the Panchayat Act into operation because the villagers were not willing to stand for elections. This was convincing proof that it was not possible to revive the old Panchayats wholesale, or even to reconstruct their social and economic institutions on the old basis. In the face of the economic changes that were taking place he thought that though it might be desirable to make use of the old spirit of corporate life, they could not act wholesale through the old institutions. He pointed out that in certain parts there were co-operative credit societies and housing societies on a caste basis, but this he did not think desirable at the present time, and such societies in his opinion were better when formed on an altogether new basis.

**THE MEASUREMENT
OF
PRICE FLUCTUATIONS
AND
THE TIME INTERVALS
BETWEEN
PRICE MAXIMA.**

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THE MEASUREMENT OF PRICE FLUCTUATIONS AND OF THE TIME INTERVALS BETWEEN PRICE MAXIMA.

Section I.

1. Introductory.

There is little doubt that most people would prefer to hear about a new type of phenomenon rather than attend to the precise arithmetic expression of a group of recognised facts. Scientists are in many ways quite ordinary people, and are often endowed with a similar preferential interest. It is probably for this reason that the search for new periodicities in food prices, or in the annual yields of the harvests, or in the occurrence of years of great or small rainfall, has been more actively pursued than has the examination of the annual fluctuation of prices, which is based on a fact of common observation, namely the recurrence of the seasons.

Yet I venture to think that, apart from its own intrinsic value, the quantitative analysis of the details of annual price fluctuations, will be useful when engaged in seeking for periodicities which are unknown in advance. When, indeed, we thoroughly understand the numerical magnitude and characteristics of the yearly variation, we shall be much less likely to be deceived as to the significance of the values of the constants hammered out by the automatic machinery of periodogram and Fourier Series.

This quantitative examination will lead up to the examination of the results of harmonic analysis as applied to short term fluctuations of prices, for periods varying from 2 official fortnights to 48 official fortnights. As there are 24 official fortnights in the year this analysis will cover periodicities from 1 month to 2 years, though no broken periods of a fortnight have been included in the periods examined.

The paper will close with a theorem on the closely related subject of the time-intervals between successive price maxima, this theorem enabling us to deduce the probability of any particular time-interval. The correspondence between the theoretical frequency and the observed frequency of price-intervals, for wheat in India and England, and for American Cotton at Liverpool, will be exhibited.

2. The Data.

The annual variation of the retail prices of the 5 food-stuffs, wheat, jowar, maize, gram and gur at Lahore has been examined. The prices used are those known as the Fortnightly Gazette prices, which are supposed to represent prices as they stood in the principal market for the particular commodity on the 15th and on the last day of the months. The actual intervals between the dates for which prices are recorded vary, therefore, from 13 days for the second fortnight of February in an ordinary year, to 16 days. Properly speaking the data should be corrected for the irregular lengths of the official fortnight, but the error introduced by ignoring this irregularity is small with respect to the much more serious

errors in the recorded prices themselves. These prices are in fact only approximations, as they are simply the figures which the bazaar "chaudhri" thinks it desirable to supply to the Tahsil officials. As a rule it is to the advantage of both chaudhri and Tahsildar to exaggerate the actual price, as, should a demand for one of the commodities be made, it could always be readily supplied at the quoted figure. How serious such errors may sometimes be, can be illustrated from a recent case in which the Gazette prices were checked by reports from an independent industrial surveyor. The results are—

				Price as reported in the Gazette for 31-8-1922.	Price as reported by Director of Industries for 31-8-1922.	Percentage difference.
				Rs. A. Per maund.	Rs. A. Per maund.	Per cent
Wheat	..	..	..	5 11½	5 6	6
Jowar	..	..	..	5 0	3 12	33
Ghi	..	..	..	106 0	96 0	10
Bengal Coal	..	..	..	1 8	1 0	50

These are, of course, extreme cases from a series of prices of 24 commodities, and even in them the Tahsildar was able to produce written evidence that his quotations were accurate (*sic*), so that the true price was possibly intermediate between the two sets of figures. Yet, the instance emphasizes the need for caution in blindly accepting a single quotation as reliable, and the inaccuracies may be sufficient even to affect conclusions based on averages of a good many years.

In the method of examination of the prices adopted here, systematic errors are to a large extent eliminated by dealing only in the price level of any commodity expressed as a percentage of the antecedent years' annual average price for that commodity, so that a uniform percentage error of a quoted price in excess or defect will not alter the working ratio. There is no means, however, of deducing the true percentage price of a commodity from quotations which suffer from non-systematic errors, and we are obliged to fall back on a mathematical graduation, based on the unproved assumption that prices will, on an average, over a long series of years, exhibit no abrupt fluctuations.

This smoothing-out process is a common-place of all statistical and physical research, and its validity depends on the closeness with which the adopted graduation formula expresses the actual law underlying the data. In the case of the seasonal variation in prices, it is clear that some periodic function is required, and this condition rules out the application of parabolic, or exponential curves used in actuarial work, or Pearsonian Frequency curves. The obvious function to use is, therefore, the first harmonic of the Fourier Series, and this function has been calculated for all the seasonal price data given hereafter.

3. Further descriptions of the data and treatment thereof.

Retail prices have been used throughout the present investigation, partly because it seemed likely that they would be less liable to be incorrect owing to speculation and the rigging of the market, and, chiefly because a longer unbroken series of such prices is available in the Punjab Gazette. Even so the statistics suffer from *lacunae*, and none of the series was found to be complete prior to 1873. The actual years for which the prices have been utilised are—

	1ST GROUP.	2ND GROUP.
Wheat	.. 1874-1897 (24 years)	.. 1898-1921 (1912 excluded) (23 years).
Jowar	.. 1874-1897 (24 years)	.. 1898-1921 ((excluding 8 years) (16 years).
Maize	.. 1885-1897 (13 years)	.. 1898-1921 (excluding 1906-1912) (22 years).
Gram	.. 1874-1897 (24 years)	.. 1898-1921 (24 years).
Gur	.. 1885-1897 (13 years)	.. 1897-1921 (24 years).

Thus, in the most favourable case, that of gram, a record of only 48 years of prices, that is 1,152 price quotations are obtainable; and, in the least favourable case, that of maize, there are 840 price quotations, covering a period of 35 years. The statistics have been divided throughout into 2 groups, the purpose served by this division being twofold. Firstly, the significance of a price fluctuation which is repeated in both series of years is emphasized, and, secondly, the dichotomy is made between 1897-98, which corresponds to the commencement of irrigation on the Lower Chenab Canal. The years 1898 to 1921 thus cover a transitional period of land development, during which large additional supplies were brought into the market, with beneficial effects in stabilising prices, though the extent of this influence has not been as marked as might have been anticipated. The second advantage of the dual grouping is, therefore, that it affords us a criterion of the effects of colonization on price fluctuations.

In this connection, however, a logical fallacy must be avoided, as if we attribute all resemblances in price fluctuations in the two periods to permanent causes, and divergences to temporary ones, we may be deceived by similarities and dissimilarities which result from random sampling, and in this respect our generalisations may possess a lower order of probability than the repetition would appear to indicate.

The retail price figures, expressed in seers per rupee, cannot be used in their crude state, as there has been a steady secular rise imposed on the short term variations, and as it is the latter variation that we are proposing to isolate, it becomes necessary to eliminate the effect of such secular changes by comparing each price with a series of figures representing the general trend. Such general trend might not inappropriately be expressed by the straight line of closest fit, or by a parabola of the 2nd or higher order; but, whereas such parabolae often represent the mean price level within the recorded range, they are very unsafe guides for extrapolation. As all scientific formulae have ultimately to submit to

the test of place—or time-extrapolation, this method is put out of course as a practical solution. The commonly adopted alternative is to compare each price with the running average, or mean of the observed prices, equidistant ahead and astern of the central price. This procedure seems to be open to the practical objection that the instantaneous running average, that is the running average price at the present moment, is indeterminate, the result being that in order to make a prediction of the price, say, a month ahead, we should need simultaneously to predict, two, three, four or more months ahead as well.

The course adopted in this paper has been to divide each fortnightly price by the mean of the 24 antecedent fortnightly prices, and to express the result as the percentage. This was done in the case of wheat, jowar, maize and gram; but for gur, owing to pressure of time, the price in a particular fortnight was divided by the average price for the year ending on the previous 31st December. The figures obtained for gur will thus not be exactly comparable with those of the others for crops, but the difference will probably not be serious.

4. Fluctuations exhibited as harmonic curves.

When each price had been expressed as a percentage, the average was found for each fortnight over a term of years and the first harmonic of the averages was calculated. In addition, the standard deviation from year to year of each of the fortnightly percentage prices were determined, this standard deviation being a measure of the divergence of the percentage price from its own mean; that is to say, that not only is the height of the yearly tidal wave of prices, but also the extent to which economic storms may super-impose special crests or hollows, has been measured. The greater, then, the standard deviation is for any particular fortnight the more reason we will have to anticipate economic disturbances at that epoch. The results obtained therefore (always with the limitation that random sampling may be at work) ought to be of considerable value to the business man and to the statesman who would launch his enterprise at the most favourable state of the economic tide.

The directly calculated percentage prices, and their standard deviations and co-efficients of variations, are given in statements 1—9. The first harmonics which represent the closest fitting of a sine or cosine curve with a period of one year are as follows:—

First Harmonics of Annual Grain Prices (Lahore) Retail in seers per rupee. Prices as percentages on 24 preceding Fortnights Average. Referred to First fortnight January as origin. For a calendar year $t = 1$.

	Percentage Prices,	Standard Deviations,
WHEAT.		
Group I	$.. 99.1 + 5.2 \sin (2\pi t + 278^\circ)$	$15.5 + 3.3 \sin (2\pi t + 129^\circ)$
Group II	$.. 98.9 + 7.8 \sin (2\pi t + 288^\circ)$	$14.3 + 2.1 \sin (2\pi t + 177^\circ)$
Joint Period	$99.0 + 6.6 \sin (2\pi t + 283^\circ)$	$15.0 + 2.5 \sin (2\pi t + 143^\circ)$

	Percentage Prices.	Standard Deviations.
JOWAR.		
Group I *	.. 00.5+9.7 Sin ($2\pi t+109^\circ$)	22.1+3.7 Sin ($2\pi t+86^\circ$)
Group II	.. 103.2+6.6 Sin ($2\pi t+118^\circ$)	20.6+2.7 Sin ($2\pi t+82^\circ$)
Joint Period	.. 101.0+8.3 Sin ($2\pi t+113^\circ$)	21.7+3.2 Sin ($2\pi t+87^\circ$)
MAIZE.		
Group I	97.9+9.2 Sin ($2\pi t+96^\circ$)	25.4+7.4 Sin ($2\pi t+74^\circ$)
Group II	.. 100.2+8.9 Sin ($2\pi t+24^\circ$)	23.0+3.1 Sin ($2\pi t+15^\circ$)
Joint Period	.. 99.3+7.5 Sin ($2\pi t+53^\circ$)	23.3+4.3 Sin ($2\pi t+42^\circ$)
GRAM.		
Group I	.. 98.9+3.5 Sin ($2\pi t$)	18.9+2.6 Sin ($2\pi t+147^\circ$)
Group II	.. 99.5+5.3 Sin ($2\pi t+312^\circ$)	19.5+3.9 Sin ($2\pi t+283^\circ$)
Joint Period	.. 99.2+4.3 Sin ($2\pi t+329^\circ$)	19.4+1.4 Sin ($2\pi t+249^\circ$)
GUR.		
Group I	99.0+6.9 Sin ($2\pi t+43^\circ$)	8.4+1.1 Sin ($2\pi t+113^\circ$)
Group II	.. 100.3+8.9 Sin ($2\pi t+27^\circ$)	9.1+3.2 Sin ($2\pi t+112^\circ$)
Joint Period	.. 100.0+8.1 Sin ($2\pi t+35^\circ$)	9.0+2.9 Sin ($2\pi t+112^\circ$)

It will be observed that on the whole there is substantial agreement for each crop between the amplitude and phases for the periods before and after 1898. * This agreement appears in both the first harmonics of the standard deviations as well as of percentage prices, and must be regarded as indicating that, on an average, the ebb and flow of crop prices dependent as it is, on the regular recurrence of the harvests, is comparatively unaffected by non-periodic forces arising from political and international complications. †

To get a clear grasp of the nature of the seasonal change in prices the figures in the statements already referred to have been exhibited graphically in diagrams 1—17. These diagrams show, I think, better than any amount of description, what is the form of annual price curves.

In the figures given above the phases of all the first harmonics have represented the interval between the last ascending node and the beginning of the calendar year. In discussing price fluctuations, however, it is desirable to refer the price of each crop to the harvest time, and the following results are obtained which show the interval that ordinarily elapses between the harvest and the phase at which prices are a minimum (that is to say, when most seers per rupee are sold).

*The only marked exception of this rule appears in the case of the standard deviation for gram, where the phases for the first and second group of years differ by no less than 136° , corresponding to an interval of just over $4\frac{1}{2}$ months. As a result of this the greatest unsteadiness of gram prices which, prior to 1898, occurred at the end of October and the beginning of November, during the last 24 years, has shifted to about May or June. The amplitude, too, of the standard deviation has increased from 2.6 for the 24 years 1874-1897 to 3.9 for the 24 years 1898-1921. One may hazard the supposition that in recent years there has been more speculation in this crop at and after harvest time than previously.

† It is quite conceivable, however, that the historian of the future will regard the last 50 years in the Punjab, from an economic aspect, as a period of halcyon calm!

Crop.	Period elapsing between harvest and time of cheapest crop prices.		Time elapsing between harvest and period of greatest unsteadiness of prices.	
	Months.	Weeks.	Months.	Weeks.
Wheat (1874—1897) .. ..	..	3	5	3
„ (1898—1921) .. ..	..	2	4	..
Jowar (1874—1897)	6	2	5	..
„ (1898—1921)	4	..	5	1
Maize (1885—1897)	3½	..	4½	..
„ (1898—1921)	6	..	6½	..
Gram (1874—1897)	11	..	6	..
„ (1898—1921)	½	..	1½	..
Gur (1885—1897) .. ..	..	..	9¾	..
„ (1898—1921)	½	..	9¾	..

The conclusions to be drawn appear to be that even with such important crops as wheat, gram and gur, the full effect of the harvest in reducing prices is experienced almost simultaneously with the appearance of the crop on the market ; whereas for jowar and maize the full effect of the harvest is not produced till many months later. This is particularly marked in the case of jowar for the period prior to 1898, and for maize since that date. In the latter case, in fact the observed time of lowest prices is at the end of April. Practically all prices, it should be noted, are steadier during the middle of the year than at any other time. The business community, therefore, appears to be more confident, and to be less inclined to gamble on the monsoon than are the framers of Indian Budgets.

It is impossible to notice all the interesting points suggested by the curves, but the following resumé, showing the annual range and unsteadiness of prices for all the years for which the statistics have been considered, may be given—

Crop.					Annual Range	Unsteadiness as represented by mean of standard deviation throughout the year.
					Per cent.	
Jowar	..	..	..	..	8·3	21·7
Gur	..	..	..	..	8·1	9·0
Maize	..	..	..	..	7·5	25·3
Wheat	..	..	..	..	6·6	15·0
Gram	..	..	..	..	4·3	19·4

• Thus jowar is the crop with the greatest annual range of prices, whereas maize prices exhibit the greatest average unsteadiness throughout the year. The great annual range of gur prices must be interpreted in the light of war conditions which affected the prices of sugar, the annual range having risen from 6·9 per cent. prior to 1898 to 8·9 per cent. since that date. With unrestricted ocean traffic and the recovery of the German Beet-sugar industry it seems likely that a return to the neighbourhood of the smaller annual range of about 7 per cent. is imminent. The striking steadiness of gur prices from year to year is a commentary on the advantages of a market stabilised by world prices, and wheat, which is the next steadiest of the 5 crops examined, enjoys, though to a less degree, the same benefit.

In seeking a metaphor of the very clearly marked phenomena of annual range and unsteadiness of prices in the commodities noted above the best is probably that already used, namely, to compare the level of prices with the tidal waves of the sea, with crest and trough succeeding each other in yearly groups. The tendency of the rhythm is that crest and trough should recur at regular intervals, as a consequence of the uniform recurrence of the seasons and harvests. But, superposed on this tidal system, ripples or waves due to economic zephyrs, breezes or hurricanes, disturb the rhythmic rise and fall of prices, and may even, to the nonchalant observer, seem to obliterate the effects of the annual ebb and flow.

It is clear that we have moved but part of the way from a state of utter dependence on the seasons, when periods of harvest plenty alternated with want and starvation, and, that it is very necessary to join up India's economic "mare clausum" with the more smoothly heaving ocean of the world's markets.

The task of the statesman, and, I may add, of the far-sighted business man, is to take steps to reduce the extent of the annual rise and fall to reasonable dimensions, and to prevent the smooth progression from being unduly ruffled by political, social, or economic storms.

My figures show, for the crops examined to what extent this fundamental object has been achieved in the Punjab.

SECTION II.

5. Short-term fluctuations in Punjab prices.

Attention has already been drawn to the fascination which the search for long-term weather, crop and price cycles exercises over many scientific men. Such cycles have been investigated by Dr. (now Sir Napier) Shaw, * Sir Arthur Schuster, † Prof. H. L. Moore ‡ and most recently of all by Sir William Beveridge. § Schuster laid the foundations of a sound mathematical theory, but it seems doubtful whether the structure is yet complete, and, in applying Schuster's theory some limitations have been lost sight of by subsequent writers.

In all the investigations quoted the reality of the periods has been judged by a comparison of the magnitude of the intensity, namely the square of the amplitude, with the average "intensity" for all the periods sought. According to Schuster the probability that any particular intensity should be k or more times the mean value of the intensity is e^{-k} , but as Dr. Gilbert Walker || has pointed out in a fundamental theorem on the subject, if a very large number of intensities is calculated, the probability that the greatest of these intensities is k or more times the mean is very far from being e^{-k} .

We may carry Walker's analysis a step further by finding not only the probable value of the greatest intensity out of m observed intensities, but also the actual frequency distribution of the greatest intensities in repetitions of the m sets of observed intensities.

The extension is simple. For let the frequency with which the greatest intensity lies between i and $i + \delta i$, be $f(i) \delta i$, then, clearly the chance that the greatest intensity is less than c is

$$\frac{\int_0^c f(i) di}{\int_0^\infty f(i) di}$$

Then provided $\int_0^\infty f(i) di = 1$, we get

$$\int_0^c f(i) di = (1 - e^{-a/c})^m$$

* Proc. Roy. Soc. Series A, vol. 78, p. 69.

† Proc. Roy. Soc. vol. 77 (1905), p. 741, "on the periodicities of sunspots" Phil. Trans. A, vol. 206, 1906.

"The periodogram of magnetic declination as obtained from records of the Greenwich observatory during the years 1871-1895".

Stokes' commendation, volume (1899), p. 107.

‡ "Crop Cycles in the United Kingdom and in France". Journ. Roy. Stat. Soc., May 1920, p. 445, and other papers.

§ "Weather and harvest cycles". The Economic Journal, December 1921 and Journ. Roy. Stat. Soc. May 1922.

|| "On the criterion of the reality of relationships or periodicities." Memoirs, Indian Met. Dept., vol. XXI, part IX, 1912.

Whence differentiating with respect to a ,

$$f(c) = \frac{m}{a} \left(1 - e^{-c/a} \right)^{m-1} \frac{-c/a}{e},$$

and it is easy to show that the integral of $f(c)$ from 0 to ∞ is unity. The actual value of $f(c)$ for various values of m and $\frac{c}{a}$ is given in the subjoined table, and it will be seen that as m increases to 50 and over, the modal value of the greatest intensity occurs for values of $\frac{c}{a}$ between 4 and 5.

Table giving the values $m \left(1 - e^{-c/a} \right)^{m-1} \frac{-c/a}{e}$

i. e., giving the distribution of the values of the greatest of m harmonics amplitudes from a group of average amplitude a

	$m=10$	$m=20$	$m=30$	$m=40$	$m=50$	$m=100$
$c/a=1$	059,279,5	001,207,6	000,018,5	000,000,3	000,000,0	000,000,0
$c/a=2$	365,629,2	170,823,9	059,857,3	018,613,8	005,444,0	000,007,6
$c/a=3$	314,416,1	377,349,7	339,660,1	271,764,3	203,850,5	031,724,0
$c/a=4$	155,084,6	267,820,4	321,460,1	356,274,2	370,180,0	293,789,1
$c/a=5$	063,465,8	118,753,5	166,653,3	207,887,8	243,117,0	348,519,4
$c/a=6$	024,240,0	047,310,6	069,198,3	090,043,5	109,745,5	193,875,2
$c/a=7$	009,044,3	017,924,2	026,642,2	035,200,3	043,600,9	083,313,5
$c/a=8$	003,344,5	006,666,6	009,966,4	013,244,0	016,490,5	032,449,9
$c/a=9$	001,232,7	002,462,4	003,689,1	004,912,7	006,133,3	012,191,0
$c/a=10$	000,453,8	000,997,2	001,360,2	001,812,8	002,264,9	004,519,6
$c/a=15$	000,003,1	000,006,1	000,009,2	000,012,2	000,015,2	000,030,6
$c/a=20$	000,000,0	000,000,0	000,000,1	000,000,1	000,000,1	000,000,2

In the case of m equal to 100, and this is less than the number of amplitudes worked out by Sir William Beveridge it would not be at all surprising to find a ratio of $\frac{c}{a}$ greater than 8 or 9, even as a matter of pure chance.*

The theoretical treatment for a small finite number of observations seems very difficult; and the present writer has set himself, therefore, only the much simpler task of applying periodogram analysis to Punjab fortnightly prices, not with the idea of discovering any new periodicities, but merely to see how the known yearly variation in prices, which,

* The chance of the greatest intensity being 14.7 times the average as found by Sir William Beveridge in his Economic Journal paper, for a period of 15 years, is too small to be seriously considered, but then Schuster's theory does not apply accurately to values of the amplitudes calculated from only 20 summations.

as has been seen in section I, is a well marked phenomenon, will exhibit itself among a host of other amplitudes. For this purpose the fortnightly retail prices of Punjab Wheat at Lahore from 1874—1921, have been taken and examined for periodicities of 2 to 48 official fortnights, that is to say, from a time of 15 days, approximately, to 2 years. The amplitudes and phases are given for each group of years 1874—1897, and from 1898—1921 separately, in statement 10, while the periodograms for the 2 groups of years are exhibited in diagrams 18 and 19. The results do confirm, I think, our *a priori* knowledge, of the existence of an annual fluctuation, but no other periodicity is outstanding in both series of years. The following results are obtained :—

Years.	Maximum intensity.	Observed Mean intensity.	Period.	Ratio of maximum to mean intensity.
1874-1897 ...	55.50	8.21	46 fortnights	6.76
1898-1921 ...	57.15	4.44	24 „	12.68

The results are presented without comment, except to observe that the amplitudes show a general tendency to increase with the length of the period, which suggests that random sampling is at work for the higher periods, where only a few summations are available.*

* These seem to me many difficulties of interpretation, which must be solved before claiming the discovery of real periodicities. A first step is to compare the histogram of computed amplitudes with Schuster's theoretical frequency distribution

$$f(\rho) = \frac{N}{2\sigma^2} - \frac{N\rho^2}{4\sigma^2\rho}$$

The immediate doubt arises as to whether the theoretical value of the "expectancy" should be inserted in this formula, or the observed mean intensity. Curves have been drawn, on both assumptions, for Sir William Beveridge's complete series, and for the 2 Punjab wheat periodograms. They could not, however, be reproduced here.

SECTION III.

6. On the probable intervals between the occurrence of maxima in physical, social or economic phenomena.

It may be observed that a phenomenon may be of perfectly regular recurrence, but if its magnitude at any particular time is not represented by a sine or cosine curve, the amplitude of the 1st harmonic will not do full justice to the regularity. It seems possible, for example, that the periodogram analysis of the future may be based on other than Fourier Series.*

From a practical point of view the actual times of a maximum or minimum price may be of more importance than the general aspects of the ebb and flow of values, and all business men, whether they are scientists or not, must be interested in estimating the interval that must elapse between one boom and the next.

The following investigation of the distribution of such intervals will, therefore, be of use.

If we assume that the time axis is divided into discrete intervals, and that the ordinate representing the magnitude of any variable is given at unit intervals of time, then the straight lines joining the values of the ordinate at successive units of time will have a series of maxima. It would, in the absence of any knowledge to the contrary, be reasonable to suppose that the magnitude is just as likely to increase as to decrease from the value it has at any given moment. It is assumed that the recorded differences of the magnitude are sufficiently fine to exclude the chance of neither an increase or decrease being recorded.

To test whether the supposition as to the equal probability of a rise or fall will explain the observed facts, let us assume generally, in the first instance, that the probability of the variable continuing to do between interval n and $n+1$ what it did between interval $n-1$ and n , to be p if the value is rising and q if it is falling. It seems necessary to assume that $p=q$ for most series of statistics, otherwise the magnitude concerned would tend to increase or decrease without limit. Let the tendency, then, for the phenomenon to persist in the direction it is already moving in, be S , and the tendency to change be $1-S$.

Then the chance of a change of direction occurring after p intervals of time, measuring from the beginning of the interval which marks a change in direction, is clearly $S^{p-1}(1-S)$. The chance that another change of direction takes place after q further intervals is also

$$S^{q-1}(1-S).$$

*Cp. L. N. G. Filon, "On the expansion of Polynomials in series of Functions".
Proceedings of the Lond. Math. Soc., Ser. 2, vol. 4, parts 5 and 6.

Hence if we start with a maximum the chance that another maximum will occur N intervals later is the sum of such products as

$$S^{p-1} (1-S) \times S^{q-1} (1-S)$$

where $p \geq 1$, $q \geq 1$ and $p+q=N$

i.e., the required chance of an interval N between maxima is

$$\sum_{p=1, q=1}^N \left(S^{p+q-2} (1-S)^2 \right)$$

The summation extends from $p=1$ to $p=N-1$, and hence we have

$$C_N = (N-1) S^{N-2} (1-S)^2$$

So far we have obtained a general formula, which involves no appeal to the data themselves, and in order to apply it to a particular set of prices we shall need only to know from the figures themselves, the total number of maxima, which have occurred in a series of years, and the total time from the beginning to the end of the series. This is equivalent to knowing the mean interval between price maxima, and the total time of observation.

If we call μ_1 , the mean time-interval between maxima, we find

$$S = 1 - \frac{2}{\mu_1}$$

The calculation of μ_1 allows, then, the immediate application of the theoretical frequency formula.*

The formula has been applied to the following series:—

- (1) Monthly average Gazette prices (per quarter of 480 lbs.) of English wheat since 1859. Data taken from the London Grain, Seed and Oil Reporter, August 25, 1922.
- (2) Weekly average prices of American Middling Fair Cotton at Liverpool, since 1912. Data taken from the International Year Book of Agricultural Statistics, 1909—1921, p. 444.
- (3) Fortnightly retail wheat prices at Lahore, given in the Punjab Gazette from 1872—1922.

The Diagrams 22, 23, and 24 show the correspondence of the calculated and observed frequencies, which is remarkably good for English wheat prices, fair for American cotton, and poor for retail wheat in the Punjab. Without undue consideration for the theoretical work I am inclined to attribute the want of agreement of the Indian figures to the known inaccuracy of the data. Only the collection of a really reliable series of prices will enable further tests to be applied.

*The equation obtained is, of course, a special case of a truncated Pearson's Type III probability curve, $Y = y_0 \cdot e^{-\frac{px}{a}} \left(1 - \frac{x}{a} \right)^p$ which requires the calculation of 3 moments instead of only the one required in the text.

The following table shows the observed and calculated frequencies of the intervals for the three cases examined :—

Time intervals.	ENGLISH WHEAT MONTHLY GAZETTE PRICES.		AMERICAN COTTON WEEKLY LIVERPOOL PRICES.		INDIAN WHEAT RETAIL FORTNIGHTLY PRICES AT LAHORE.	
	Observed.	Calculated.	Observed.	Calculated.	Observed.	Calculated.
2	20	24.16	20	19.23	36	16.11
3	29	29.09	24	21.92	26	22.55
4	27	26.19	12	18.74	30	23.68
5	22	20.88	16	14.25	20	22.10
6	19	15.66	11	10.15	8	19.66
7	12	11.26	9	6.94	11	16.25
8	8	7.89	2	4.62	10	13.27
9	5	5.41	4	3.00	4	10.61
10	4	3.65	1	1.92	10	8.36
11	2	2.44	3	1.23	3	6.50
12	1	1.61	2	.76	3	5.01
13	1	1.05	..	..	2	3.82
14	0	.68	..	..	3	2.88
15	0	.44	..	..	0	2.19
16	1	.28	..	..	1	1.64
17	..	..	..	..	0	1.22
18	..	..	..	..	5	.91
19	..	..	..	..	4	.68
20	..	..	..	..	0	.50
21	..	..	..	..	2	.37
22	..	..	..	..	0	.27
23	..	..	..	..	1	.20

The summarised results of the three cases examined are—

	Mean interval between maxima.	Value of S
English wheat prices	.. 5.02 months	.. .601
American cotton ,,	.. 4.7 weeks	.. .570
Punjab wheat ,,	.. 6.68 fortnights	.. .701

The fact that in all three cases S is greater than one-half, indicates that prices, during the years for which the data have been examined, were, on the whole, possessed of inertia, and tended after a rise or fall to continue rising or falling as the case might be. The probability of this continuance is given by the values of S . To what extent this probability affords a safe guide to prediction of the future must be left to a later examination, but at least the formula adequately sums up some of the features of the past behaviour of prices, in respect of the intervals between consecutive maxima.

In concluding I wish to express my thanks to Mr. Abdul Majid, M.A., and to Mr. Balwant Singh, B.Sc., who have given great assistance in the computations.

STATEMENT 1.*Yearly variation in price of retail wheat and steadiness of the same.*Price measured as percentage of actual price in seers per rupee to average of previous 24 fortnights ($\frac{1}{2}$ months).

First period 1874—1897.

Second period 1898—1921 (1912 excluded).

Time.				MEAN PRICE.		STANDARD DEVIATION.	
				Period I.	Period II.	Period I.	Period II.
January	..	..	(i)	94	92	16.5	14.8
			(ii)	94	92	15.7	15.8
February	..	..	(i)	93	92	17.2	13.6
			(ii)	97	97	17.8	11.6
March	..	..	(i)	96	95	16.0	10.6
			(ii)	99	99	15.4	12.2
April	..	..	(i)	98	100	14.5	11.1
			(ii)	101	103	12.8	13.5
May	..	..	(i)	105	108	11.8	12.8
			(ii)	105	108	11.5	13.2
June	..	..	(i)	106	109	11.5	13.8
			(ii)	106	108	11.9	16.4
July	..	..	(i)	105	106	12.9	13.7
			(ii)	102	103	12.2	13.1
August	..	..	(i)	100	101	14.1	13.5
			(ii)	99	101	14.4	14.1
September	..	..	(i)	100	99	16.2	16.5
			(ii)	101	98	19.2	16.4
October	..	..	(i)	100	98	19.7	17.4
			(ii)	98	96	18.8	16.9
November	..	..	(i)	96	97	18.5	16.2
			(ii)	96	97	17.7	16.0
December	..	..	(i)	95	92	17.9	14.7
			(ii)	95	92	17.5	15.3
				Mean =		371.7	342.9
						15.5	14.9

STATEMENT 2.

Yearly variation in the retail price of jowar at Lahore and steadiness of the same.

(Price measured as percentage of actual price in seers per rupee to average of previous 24 fortnightly Gazette retail prices.)

First period, 1874—1897.

Second period, 1898—1921. (Excluding years 1905, 1906, 1911, 1912, 1914, 1915, 1918 and 1919.)

Time.			Mean Price.		Standard deviation.		Co-efficient of variation.	
			(I)	(II)	(I)	(II)	(I)	(II)
January	..	(i)	105	112	23·22	25·37	22·20	22·63
		(ii)	105	110	21·57	25·66	20·60	23·33
February	..	(i)	103	109	26·09	25·38	25·39	23·30
		(ii)	101	106	26·42	23·06	26·06	21·70
March	..	(i)	101	104	23·76	22·18	23·57	21·30
		(ii)	104	107	23·69	24·13	22·68	22·59
April	..	(i)	99	103	24·74	20·30	25·00	19·70
		(ii)	98	99	23·39	19·12	23·93	18·35
May	..	(i)	91	97	22·26	21·83	23·62	22·40
		(ii)	92	95	20·01	16·78	21·74	17·85
June	..	(i)	90	94	16·50	16·75	18·32	17·39
		(ii)	86	91	17·53	15·86	20·43	17·30
July	..	(i)	83	88	15·53	15·53	18·66	17·60
		(ii)	90	97	17·06	18·81	18·89	19·37
August	..	(i)	90	104	17·41	17·77	19·29	17·10
		(ii)	98	110	20·85	24·42	21·02	22·17
September	..	(i)	102	111	20·19	20·89	19·87	18·94
		(ii)	102	108	23·67	20·33	23·20	18·75
October	..	(i)	105	108	23·86	21·32	22·76	19·83
		(ii)	107	106	24·73	19·78	23·11	18·75
November	..	(i)	105	104	21·06	20·32	20·85	19·50
		(ii)	109	104	24·61	19·02	22·52	18·28
December	..	(i)	110	106	24·93	23·40	22·65	19·18
		(ii)	109	105	25·72	20·72	23·56	19·78

STATEMENT 3.

Yearly variation in the retail price of jowar at Lahore and steadiness of the same.

(Prices expressed as percentage of actual price in seers per rupee to average of previous 24 fortnightly Gazette retail prices.)

Joint period of 40 years, i.e., 1874-1921. (Excluding years 1905, 1906, 1911, 1912, 1914, 1915, 1918 and 1919.)

Time.				Mean price.	Standard deviation.	Co-efficients of variation.
January	..	..	(i)	107	24.38	22.65
			(ii)	107	23.37	21.90
February	..	..	(i)	105	25.00	24.09
			(ii)	103	25.24	24.43
March	..	..	(i)	102	23.20	22.71
			(ii)	105	23.69	22.67
April	..	..	(i)	101	23.17	23.01
			(ii)	98	21.79	22.19
May	..	..	(i)	95	22.15	23.20
			(ii)	93	18.82	20.18
June	..	..	(i)	92	16.70	18.23
			(ii)	88	17.09	19.43
July	..	..	(i)	85	15.72	18.45
			(ii)	93	18.09	19.45
August	..	..	(i)	96	18.80	19.61
			(ii)	103	23.13	22.42
September	..	..	(i)	105	20.04	19.89
			(ii)	105	22.60	21.57
October	..	..	(i)	106	22.01	21.64
			(ii)	106	22.89	21.51
November	..	..	(i)	105	21.32	20.34
			(ii)	107	22.69	21.17
December	..	..	(i)	109	23.29	21.45
			(ii)	107	23.96	22.31

STATEMENT 4.

Yearly variation in the retail price of maize at Lahore and steadiness of the same.

(Price measured as percentage of the actual price in seers per rupee to average of previous 24 fortnightly Gazette retail prices.)

First period of 13 years, 1885—1897.

Second period of 22 years, 1898—1921, excluding 1906, 1912.

Time.			Mean prices.		Standard deviations.		Co-efficients of variation.	
			I	II	I	II	I	II
January	..	(i)	103	104	29·31	25·35	28·41	24·31
		(ii)	104	107	24·27	27·32	23·42	25·48
February	..	(i)	103	104	31·12	25·00	30·08	23·95
		(ii)	99	103	27·38	22·93	27·63	22·19
March	..	(i)	101	103	27·01	20·79	26·83	20·20
		(ii)	103	109	31·91	24·62	30·87	22·66
April	..	(i)	102	111	33·70	28·07	33·08	25·35
		(ii)	100	111	33·45	31·55	33·34	28·36
May	..	(i)	96	109	31·70	29·11	33·05	26·72
		(ii)	91	106	18·40	26·49	20·30	24·94
June	..	(i)	87	104	17·67	23·05	20·23	22·15
		(ii)	87	99	17·32	16·24	19·98	16·44
July	..	(i)	84	95	13·82	18·75	16·48	19·81
		(ii)	84	91	13·49	22·53	15·99	24·78
August	..	(i)	89	88	20·76	20·07	23·39	22·89
		(ii)	94	88	14·86	19·86	15·83	22·66
September	..	(i)	94	89	18·72	21·66	19·82	24·48
		(ii)	95	92	17·45	18·98	18·46	20·53
October	..	(i)	101	94	22·33	21·48	22·12	22·74
		(ii)	107	100	26·51	23·11	24·67	23·22
November	..	(i)	107	98	28·88	21·40	26·88	21·73
		(ii)	107	101	31·59	22·38	29·44	22·19
December	..	(i)	106	99	32·58	19·50	30·83	19·63
		(ii)	105	99	30·49	25·97	29·13	21·12

STATEMENT 5.

Yearly variation in the retail price of maize at Lahore and steadiness of the same.

(Price measured as percentage of actual price in seers per rupee to average of previous 24 fortnightly Gazette retail prices.)

Joint period of 35 years, 1885—1921, excluding 1906, 1912.

Time.				Mean Price.	Standard deviations.	Co-efficients of variation
January	..	..	(i)	104	26·89	25·92
			(ii)	106	26·28	24·82
February	..	..	(i)	104	27·43	26·37
			(ii)	102	24·81	24·40
March	..	..	(i)	102	23·31	22·84
			(ii)	107	27·67	25·93
April	..	..	(i)	107	30·59	28·47
			(ii)	107	32·66	30·40
May	..	..	(i)	104	30·75	29·53
			(ii)	100	24·95	21·85
June	..	..	(i)	98	22·70	23·30
			(ii)	94	17·64	18·71
July	..	..	(i)	91	18·24	20·13
			(ii)	88	19·82	22·42
August	..	..	(i)	88	20·34	23·09
			(ii)	90	28·41	20·46
September	..	..	(i)	91	20·82	22·95
			(ii)	93	18·44	19·77
October	..	..	(i)	97	22·02	22·74
			(ii)	103	24·77	24·15
November	..	..	(i)	102	24·83	24·30
			(ii)	103	26·37	25·54
December	..	..	(i)	102	25·37	24·02
			(ii)	101	25·07	24·75

STATEMENT 6.

Yearly variation in the retail price of gram at Lahore and steadiness of the same.

(Price measured as percentage of the actual price in seers per rupee to average of the previous 24 fortnightly Gazette retail prices.)

First period of 24 years, 1874—1897.

Second period of 24 years, 1898—1921.

Time.			Mean prices.		Standard deviations.		Co-efficients of variation.	
			I	II	I	II	I	II
January	..	(i)	98	95	19·26	17·06	19·65	17·90
		(ii)	99	95	18·69	15·29	18·88	16·09
February	..	(i)	98	95	19·29	16·54	19·68	17·41
		(ii)	100	97	20·01	14·87	20·01	15·33
March	..	(i)	101	99	17·59	12·81	17·42	12·94
		(ii)	103	103	17·86	15·47	17·34	15·02
April	..	(i)	103	107	16·15	24·74	15·68	23·12
		(ii)	103	109	16·07	25·81	15·60	23·68
May	..	(i)	103	107	18·09	24·49	17·56	22·80
		(ii)	101	104	16·72	23·81	16·55	22·80
June	..	(i)	102	104	15·92	23·83	15·60	22·91
		(ii)	101	105	14·91	24·61	14·76	23·44
July	..	(i)	100	103	17·02	23·02	17·02	22·35
		(ii)	97	102	17·77	21·27	18·32	20·85
August	..	(i)	94	99	18·24	18·95	19·40	19·14
		(ii)	95	99	19·34	19·13	20·36	19·32
September	..	(i)	94	98	20·12	20·47	21·40	20·89
		(ii)	96	98	22·42	19·54	23·35	19·94
October	..	(i)	97	98	22·53	20·60	23·23	21·02
		(ii)	96	96	21·33	18·10	22·20	18·85
November	..	(i)	96	96	21·77	18·82	22·68	19·60
		(ii)	98	95	19·68	16·99	20·08	17·88
December	..	(i)	99	94	21·01	15·85	21·22	16·86
		(ii)	99	93	20·52	16·29	20·73	17·52

STATEMENT 7.

Yearly variation in the retail price of gram at Lahore and steadiness of the same.

(Price measured as percentage of the actual price in seers per rupee to average of the previous 24 fortnightly Gazette retail prices.)

Joint period of 48 years, 1874—1921.

Time.				Mean prices.	Standard deviations.	Co-efficients of variation.
January	..	..	(i)	96	18·14	18·90
			(ii)	97	17·19	17·72
February	..	..	(i)	97	18·06	18·62
			(ii)	99	17·71	17·80
March	..	..	(i)	100	15·45	15·45
			(ii)	103	16·71	16·22
April	..	..	(i)	105	20·99	19·32
			(ii)	106	21·73	20·50
May	..	..	(i)	105	21·60	20·57
			(ii)	103	20·66	20·06
June	..	..	(i)	103	20·29	19·70
			(ii)	103	20·41	19·82
July	..	..	(i)	101	20·27	20·07
			(ii)	99	19·75	19·95
August	..	..	(i)	97	18·69	19·27
			(ii)	97	19·38	19·08
September	..	..	(i)	96	20·40	21·25
			(ii)	97	21·04	21·69
October	..	..	(i)	97	21·00	22·27
			(ii)	96	19·79	20·61
November	..	..	(i)	96	20·35	21·20
			(ii)	97	18·45	19·02
December	..	..	(i)	96	18·75	19·53
			(ii)	96	18·74	19·52

STATEMENT 8.

Yearly variation in the retail price of gur at Lahore and steadiness of the same.

(Price measured as the percentage of the actual price to the annual average of the 24 fortnightly Gazette retail prices.)

First period of 13 years, 1885—1897.

Second period of 24 years, 1898—1921.

Time.			Mean Prices.		Standard deviations.		Co-efficients of variation.	
			I	II	I	II	I	II
January	..	(i)	106	109	10·98	12·08	10·36	11·08
		(ii)	108	108	12·56	11·63	11·63	10·76
February	..	(i)	109	108	9·71	9·17	8·91	8·49
		(ii)	109	108	8·37	8·63	7·68	7·99
March	..	(i)	108	110	6·92	8·18	6·41	7·43
		(ii)	106	108	5·12	8·75	4·83	8·10
April	..	(i)	103	107	7·26	8·14	7·05	7·61
		(ii)	100	105	9·80	7·99	9·80	7·61
May	..	(i)	98	103	6·31	8·57	6·44	8·32
		(ii)	96	100	6·66	6·62	6·94	6·62
June	..	(i)	99	100	8·75	6·03	8·84	6·03
		(ii)	100	100	5·28	5·47	5·28	5·47
July	..	(i)	97	98	6·11	5·42	6·30	5·53
		(ii)	97	98	5·46	7·08	5·63	7·22
August	..	(i)	97	95	4·93	7·68	5·08	8·08
		(ii)	95	95	7·84	7·46	8·25	7·95
September	..	(i)	93	92	8·33	8·28	8·96	9·00
		(ii)	92	90	9·56	7·92	10·39	8·80
October	..	(i)	93	91	9·43	9·74	10·14	10·07
		(ii)	94	90	8·33	10·22	8·86	11·36
November	..	(i)	94	88	10·33	12·46	10·99	14·16
		(ii)	94	95	8·55	12·30	9·10	12·95
December	..	(i)	105	104	12·47	14·47	11·88	13·91
		(ii)	105	105	11·76	13·85	11·20	13·19

STATEMENT 9.

Yearly variation in the retail price of gur at Lahore and steadiness of the same.

(Price measured as the percentage of the actual price to the annual average of the 24 fortnightly Gazette retail prices.)

Joint period of 37 years, 1885—1921.

Time.				Mean prices.	Standard deviations.	Co-efficients of variation
January	..	..	(i)	108	11.78	10.91
			(ii)	108	11.96	11.07
February	..	..	(i)	108	9.38	8.69
			(ii)	108	8.55	7.92
March	..	..	(i)	109	7.79	7.15
			(ii)	107	7.71	7.21
April	..	..	(i)	105	8.04	7.66
			(ii)	103	9.18	8.91
May	..	..	(i)	101	8.32	8.24
			(ii)	99	6.90	6.97
June	..	..	(i)	100	7.11	7.11
			(ii)	100	5.40	5.40
July	..	..	(i)	98	5.75	5.87
			(ii)	97	6.59	6.79
August	..	..	(i)	96	6.87	7.23
			(ii)	95	7.59	7.99
September	..	..	(i)	93	8.32	8.95
			(ii)	91	8.60	9.45
October	..	..	(i)	91	9.82	10.79
			(ii)	91	9.96	10.95
November	..	..	(i)	90	12.15	13.50
			(ii)	95	11.13	11.72
December	..	..	(i)	104	13.81	13.28
			(ii)	105	13.15	12.52

STATEMENT 10.

Periodicity of retail wheat at Lahore.

Statement showing the amplitudes and phases of the first harmonics.

First group of 24 years, 1875—1897.

Second group of 23 years, 1898-1921, excluding 1912.

Main Periods.				AMPLITUDES.		PHASES.	
				1st Group.	2nd Group.	1st Group.	2nd Group.
						Degs. Mins.	Degs. Mins.
2 Fortnights ..	..	..	..	·21	·22	270 00	270 00
3 " ..	..	..	..	·33	·05	219 57	130 22
4 " ..	..	..	..	·44	·21	47 17	65 54
5 " ..	..	..	..	·36	·21	183 11	265 36
6 " ..	..	..	..	·83	·23	147 51	160 01
7 " ..	..	..	..	·46	·31	2 29	65 06
8 " ..	..	..	..	·98	·76	2 55	25 23
9 " ..	..	..	..	1·92	·66	301 47	35 17
10 " ..	..	..	..	·64	·62	182 20	303 11
11 " ..	..	..	..	1·04	1·34	60 44	20 46
12 " ..	..	..	..	1·76	2·03	187 00	184 49
13 " ..	..	..	..	·51	·61	1 07	166 04
14 " ..	..	..	..	·09	·40	18 31	182 52
15 " ..	..	..	..	1·21	1·47	55 00	350 37
16 " ..	..	..	..	1·30	·99	60 56	28 27
17 " ..	..	..	..	1·21	1·49	242 22	135 33
18 " ..	..	..	..	·92	1·14	32 10	168 53
19 " ..	..	..	..	1·88	·88	61 45	204 49
20 " ..	..	..	..	1·06	1·61	61 38	189 59
21 " ..	..	..	..	·79	·33	310 52	190 37
22 " ..	..	..	..	1·31	1·05	182 24	10 59
23 " ..	..	..	..	2·66	1·55	283 23	1 07
24 " ..	..	..	..	5·12	7·56	278 14	287 24
25 " ..	..	..	..	·60	1·26	211 55	342 26
26 " ..	..	..	..	1·01	1·41	58 10	357 34
27 " ..	..	..	..	3·28	2·48	126 00	342 53
28 " ..	..	..	..	·74	3·09	240 40	60 17
29 " ..	..	..	..	2·20	1·56	271 40	99 13
30 " ..	..	..	..	1·36	·14	170 15	270 00
31 " ..	..	..	..	2·69	2·61	352 53	88 54
32 " ..	..	..	..	2·56	1·03	198 10	161 23
33 " ..	..	..	..	4·25	2·10	353 58	190 08
34 " ..	..	..	..	2·38	2·83	122 12	288 07
35 " ..	..	..	..	2·50	1·30	0 50	45 00
36 " ..	..	..	..	4·59	1·10	94 12	226 06
37 " ..	..	..	..	3·30	·63	140 47	278 16
38 " ..	..	..	..	3·86	2·49	155 53	235 17
39 " ..	..	..	..	3·47	4·40	191 19	299 25
40 " ..	..	..	..	2·25	4·01	192 00	354 08
41 " ..	..	..	..	4·49	2·40	191 58	33 06
42 " ..	..	..	..	5·30	1·76	238 00	33 52
43 " ..	..	..	..	3·23	1·77	274 32	77 56
44 " ..	..	..	..	2·44	1·38	221 40	155 07
45 " ..	..	..	..	5·83	1·40	244 13	229 17
46 " ..	..	..	..	7·45	1·37	286 22	254 45
47 " ..	..	..	..	6·33	2·37	329 14	249 30
48 " ..	..	..	..	3·01	4·40	5 26	276 55

DISCUSSION ON MR. JACOB'S PAPER.

PROFESSOR J. C. COYAJEE congratulated Mr. Jacob on his very valuable and useful contribution, and also the Punjab province on its possession of such able officers who could give such important contributions—important not only to Indian economists but instructive to all students of statistics. As a member of the Fiscal Commission he was interested in the subject and said that although the restrictions on exports might cease he could not believe that bad abnormal fluctuations in the price of wheat would disappear, because there were other factors affecting its price, *e.g.*, the substitution of wheat for other grains with fluctuating prices.

PROFESSOR JEVONS said he desired to thank Mr. Jacob for putting before them the results of his very extensive inquiries into the fluctuations of prices. He would, however, like to see the investigation carried through the 19th century if reliable figures could be obtained. The period from 1872 seemed to him rather short. The results of the second period contradicted those of the first, and it would be extremely useful if the figures of earlier years could be got and examined.

It was put forward by another member as an explanation for the unsteadiness in the price of jowar that the production of this crop was very small and what was even more important the produce was consumed in such quantities that the stocks left over were normally very small.

MR. JACOB, replying, said he desired to thank members for the warm reception they had given to his paper. He said he personally would also like to go into the figures prior to 1874. He was inclined to agree with the suggestion put forth as a cause of the unsteadiness of the price of jowar and maize.

THE FUTURE OF THE INDIAN BANKING SYSTEM,

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(In the absence of the author, this paper was read by Professor Myles).

Indian banking is in a stage of transition. The banking embroglio and financial cataclysm of the 1913-15 period swept away the weak, insound and more venturesome of the newly started Indian Joint-Stock Banks* and ushered in a new era full of bright promise and hope. Close upon its heels came the recent war. It not only improved, re-organised and strengthened our banking system to a great extent but impressed the salient principles of banking theory better than a first-rate professor of economics would have done.

Attempts are being made to remodel our banking structure closely on the lines followed by the builders of the Federal Reserve system of the United States of America. The system of decentralised banking has been discarded in favour of the centralised banking system. A new turn to the banking wheel has been given by the creation of the Imperial Bank of India. The older Joint-Stock banks which emerged unscathed from the banking crisis have re-established their confidence and are expanding their activities into newer fields. A new type of banking institution, i.e., the Industrial Bank has been started and several banks professing industrial financing as their avowed mission have been lately started.†

* Year.	Number of Bank Failures.	Paid-up capital (000) omitted.
1913 (November and December)	.. 12	35,13
1914 .. ..	.. 42	109,09
1915 .. ..	.. 11	4,50

† The Tata Industrial Bank was the pioneer in this direction. Several others were immediately started. To-day we have the following Industrial Banks doing business in British India.

Name of the Bank.	When registered.	Place of business.
Tata Industrial Bank ..	.. 11th December 1917	.. Bombay and its branches.
Industrial Bank of Western India ..	.. 1st October 1919	.. Bombay Presidency.
Surat Industrial Bank ..	.. 30th March 1920	.. "
Calcutta Industrial Bank ..	.. 20th September 1919	.. Bengal Presidency.
Karnani Industrial Bank ..	.. 26th September 1919	.. "
Indian Industrial Bank ..	.. 26th November 1919	.. "
Sthal Industrial Bank ..	.. 23rd December 1919	.. "
Raikut Industrial Bank ..	.. 2nd January 1920	.. "
Mongyr Industrial Bank ..	.. 23rd March 1920	.. Bihar.
Simla Banking and Industrial Company ..	.. 1st September 1919	.. Delhi.
Assam Industrial Bank ..	.. 17th May 1919	.. Assam.

Even in Native States, Industrial Banks are started with the special desire of fostering industries.

Name of the Bank.	Date of Registration.	Native State.
Mysore Industrial Bank ..	.. 24th July 1920	.. Mysore.
Gundulpet Industrial Bank ..	.. 24th August 1920	.. "
Central Travancore Industrial Bank ..	.. 13th September 1919	.. Travancore.
South Malabar Industrial Bank ..	.. 6th April 1920	.. "

The Co-operative Credit Societies are silently transforming our old village homes and are working a silent revolution amidst the field of desolation and havoc wrought by the sinister influences of selfish-minded capitalism. The Indian people are slowly acquiring the banking habit and in spite of occasional bank failures here and there, the Indian depositor is confiding more trust in the existing banking institutions.* Many of the existing banks are increasing their capital† in order to provide the needed credit facilities in our money market. This increase of banking capital can be considered as an indication of the stability and financial capacity of the banks.

The banking profession is slowly becoming popular and a more intelligent class of people is coming forward to learn banking business and several of our progressive banks are rightly paying more attention towards the training of apprentices for the science of banking though it can be successfully learnt by intensive culture at the desk, yet the art of banking with its wonderful intricacies can be acquired by practical experience alone. There has been an appreciable increase in the number of banking offices either in the shape of newly started banks or in the form of branches‡ of the existing institutions, but this increase is not commensurate with the size of our country or the population to whose needs they minister. This inadequacy of banking facilities is being keenly felt as a wave of industrial activity is sweeping over our country thanks to the stimulating example of the activities of the Board of Munitions.

* The total deposits in all the three classes of banking institutions increased from Rs. 92 crores to Rs. 235 crores in 1920. The respective shares in the total deposits in 1920 were: Presidency Banks 37 %; Exchange Banks 32 %; Indian Joint-Stock Banks 31 %.

† The "paid-up capital" of the following banks increased during the years 1917 and 1920, as the Directors felt it necessary to increase their capital in order to widen the scope of their operations:—

Bank of India (Bombay).

Central Bank of India (Bombay).

Indian Bank (Madras).

Some of the Eastern Exchange Banks also increased their capital but how much of it is being employed in India cannot be definitely ascertained.

‡ The following are some of the progressive Joint-Stock Banks which have increased their branches during recent years:—

<i>Name of the Bank.</i>	<i>Branches (sub-branches).</i>		
The Alliance Bank of Simla	51	
The Allahabad Bank	26	The People's Bank of Lahore which failed in 1913, had nearly 80 branches.
The Punjab National Bank	25	
The Industrial and Exchange Bank of India (Bombay)	40	
The Tata Industrial Bank	11	
The Central Bank of India	6	
The Bharat National Bank	6	
The Poona Bank	5	
The Bank of Northern India	5	
The Indian Bank	4	

The Exchange Banks have about 46 branches and the Imperial Bank of India about 76 branches. These compete with the Commercial Banks to a certain extent.

The policy of keeping an open door to all immigrant banks is leading to the establishment of powerful foreign banks* who always aim to promote trade relations between the Indian Empire and their own mother countries. The indigenous banker of India is shaking himself free of his lethargy and torpor which has been the inevitable consequence of age-long absence of competition in the money-lending business.

Such are the interesting developments that are noticeable in Indian banking circles but much has to be accomplished before we can hope to reach the millenium of banking. Before a perfectly organised banking system can be developed, several improvements have to be effected.

The Imperial Bank of India should develop into a full-fledged Central Bank. Already a semi-state banking institution, enjoying full privileges and performing to a certain extent similar services which are rendered by the European Central Banks, it can rise to the full dignity and stature of a Central Bank.

During its short career of a year and a half, it has given promising signs of its alertness and usefulness to the community as a whole. The seasonal expansion of paper currency to five crores of rupees on export bills which has been recommended by Sir H. B. Smith's Committee† has been brought about by the action of the Imperial Bank of India during the last March when two crores of rupees were issued on export bills brought to the Controller's hands by the Imperial Bank of India.‡ Opening its branches in the interior of the country, it is expanding its field of usefulness and is bringing within easy reach of all sound banking facilities. Its promise to help the Alliance Bank of Simla to put its house in order betokens much. It is a sign that it is having a wide latitude of vision or "an imperial outlook" as Sir David Yule puts it.§

Performing more business with the banks than the outside public, thus justifying in reality the term bankers' bank, relaxing her policy of loaning to some extent, realising that it is the handmaid of trade and industry of our country whose imperative duty is to fulfil its everchanging requirements, caring less for profits than is the case at present, developing to a certain extent the newly permitted acceptance business and rendering help to all sound banks in their occasional hours of distress, the Imperial Bank of India can obtain real control in the money market

*In addition to the old Exchange Banks conducting business in our country, new banks have recently been allowed to open branches in Bombay.

<i>Name of the Exchange Bank.</i>	<i>Date and year.</i>	<i>Head Office.</i>
Sumitomo Bank ..	.. 31st December 1919	.. Japan.
National Bank of South Africa ..	.. 31st March 1920	.. London.
Imperial Bank of Persia ..	.. 20th September 1920	.. London.
Banco Nacional Ultramarino ..	.. 31st December 1920	.. Portugal.
P. O. Banking Corporation ..	.. 31st March 1921	.. London.
Reuter's Bank "	.. "

† Vide "Report of the Sir Henry Babington Smith Committee".

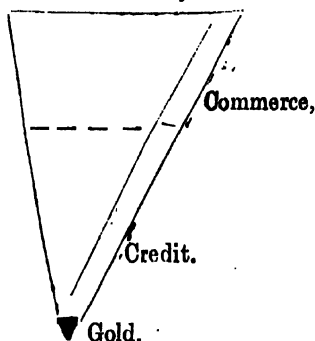
‡ Vide "Report of the Controller of Currency" 1920-1921.

§ Vide Sir David Yule's address to the shareholders of the Alliance Bank of Simla at their annual meeting held in August 1922.

and uninfluenced by political currents or the other members of the banking community, it should conduct the whole machinery of banking in the wider interests of society. A centralised system with the Imperial Bank of India acting as the mentor and guardian of the other banks is conducive to the establishment of a sound banking system.

Not only should the Imperial Bank of India pursue business of an unimpeachable character, but the ordinary commercial banks should keep proper cash reserves, rightly utilise their loanable money in liquid assets that can be instantly mobilised with the minimum of risk loss and be cautious in the granting of loans and in the proper selection of reliable and trustworthy clientele. So long as the commercial banks adhere to these golden rules there is no danger as regards their own self-preservation, but they must take care of their clients also and provide elastic currency which expands and decreases with the ebb and flow of business. They should adapt themselves to the changing needs of their customers and never unduly expand their credit by lowering the rate of discount and tempting business men to speculate or embark on wild ventures with easy money. Under the wise direction, legitimate persuasion, helpful intervention and restraining influence of the Central Bank that is arising in their midst, these commercial banks should successfully function to provide this country with sound and automatic currency and such amount of banking credit as is needed for its commercial, industrial and business requirements.

But it is neither the individual bank's conservative management nor the watchful guidance of the Central Bank, that can guarantee the soundness of our banking structure. Our people should realise that "the modern credit system is an inverted cone resting on an apex of gold" as Lord Avebury puts it. Sir R. Giffen rightly observes that "our credit system is to be likened to the long arm of a lever and the least touch on the cash basis displaces a heavy weight of credit on the opposite end." F. W. Bain who follows Lord Avebury's metaphor says, "the cone is a whipping top, the point alone on which it spins being of gold, the overhanging body consisting of paper credit." Confidence is the whipping which keeps the top revolving" and a rude shock to public confidence involving the withdrawal of gold from the banks, will fell the top to the ground and the beautiful structure will fall like a pack of cards. The late Sir Edward Holden illustrated this fundamental truth by the following diagram.*



* *Vide* Melrose "Money and Credit."

The bottom of the apex is the gold basis of the whole superstructure and a removal of a small portion of gold destroys a large portion of credit and it, in its turn, affects a large portion of commerce carried on on credit granted by the banks.

So our people should have confidence in the banks. Depositors, customers and shareholders should not easily lose their heads and reasoning faculties at the first sign of threatened danger and withdraw their support from the banks.* The banks should be doing sound business and the customers, shareholders and depositors should repose perfect trust in them. They should have mutual confidence and this increases consistently with the growth of general prosperity and social sympathy.

The indigenous bankers should be alive not to their selfish interests alone but be mindful of the interests of our country and display a keen willingness and real desire to the economic regeneration of our country. They should realise that they have outlived their period of usefulness. They should be conscious of their duty to society and instead of acting as parasites gnawing its very vitals, convert themselves into useful and indispensable adjuncts of it.

In addition to the existing banking institutions more should arise and there should be specialising institutions such as pure industrial banks, investment banks, and mortgage banks. These institutions should establish a net-work of their branches all over their country. They should coax the unwilling people into becoming reliable and trustworthy clientèle. The secure beneficence of legitimate banking should be taught to the illiterate and suspicious minds. More bankers' Clearing Houses† should be started and the private banking firms should join them as clearing bankers in order to increase their utility. Some simple and carefully laid down legislative measures should be enacted to secure the confidence of the depositors, make the path of the existing banks an easy one and confine the newly arising smaller Joint-Stock Banks to the proper field of legitimate and conservative banking. The existing private bankers should emerge from their seclusion and play an active part in popularising banking business. The Joint-Stock Banks should publish informing balance-sheets and although some of the progressive bankers are publishing a better type of balance-sheet than the one

*Such a lack of confidence was displayed in the beginning of the late war in 1914. A rush was made on the Indian Post Office Savings Banks and the Joint-Stock Banks also. Even the Paper Currency Office was raided by note-holders for conversion purposes.

† There are about six clearing houses in all in this country.

Calcutta, Karachi, Bombay, Madras, Rangoon and Cawnpore possess clearing houses and the Imperial Bank of India facilitates the "clearing business" in all these places.

Calcutta has 23 banks, Bombay has 32 banks, Madras has 8 banks, Karachi has 11 banks, Rangoon has 10 banks, Cawnpore has 9 banks, and to facilitate their business there is a Clearing House at all these places. These publish the amount of cheques "cleared" during the course of their business operations. There is no reason why clearing houses should not be started at the following centres—Amritsar, Delhi, Lahore, Lyallpur, Lucknow, Rawalpindi and Allahabad. Numerous banks work at these places and the Imperial Bank of India has its branch operating in these centres also. It can easily take the lead and start C. H. organisation.

Amritsar has 9 banks, Delhi 11 banks, Lahore 13 banks, Lyallpur 9 banks, Rawalpindi 7 banks, Allahabad 7 banks, and Lucknow 8 banks

required by the Indian Joint-Stock Companies Act of 1913* still much remains to be done in this direction to win the confidence of the public.†

It is a matter of some satisfaction to learn that the Indian Government is attempting to legislate on this matter, thus displaying its willingness to secure the interests of the depositors and accelerate the progress of the banking habit in our country. The pernicious tendency on the part of our Commercial Banks to encroach on the legitimate field of the Exchange Banks and their tendency to transact "mixed" banking business in their mistaken notion that such an action would bring about the economic salvation of our country are fraught with mischievous consequences and grave peril to their own existence and should be given up at the earliest moment. Again the present shyness on the part of some of the soundest banking institutions to amalgamate with each other has to be overcome. These are some of the important measures that have to be achieved before we can realise the full benefits of a vitalising banking system in our country.

Some of these measures have been discussed in detail in the last chapter of my book "Present Day Banking in India" published by the University of Calcutta. Attention will be paid in the following pages solely to the tendency of transacting "mixed" banking on the part of our commercial banks. Their grabbing desire to perform exchange banking business as well, will also be studied in this article.

The tendency to perform "mixed" banking business.

The classical exposition of commercial banking theory as expounded by Gilbert, Bagehot, Conant, Dunbar and Withers, has laid down that the chief business of the "commercial banks" is to finance the short-term needs of business men. The paramount duty of the "commercial" bank is to collect the floating capital of the community into its hands and lend it to *bona fide* business men or invest the money in self-liquidating and rapidly maturing loans or convert it into such other assets as not only to lie within its quick and easy control but may be also converted into standard metallic money with the minimum of risk attendant on such a conversion.

This is all theory proper but practice is rarely kind enough to conform to theory proper and one finds that "commercial banks" are making loans for investment purposes, creating fixed capital, helping speculators who dabble on the Stock Exchange, pursuing industrial financing, granting loans to persons for purely consumptive purposes and directing their control over the trade and industrial enterprises of their countries.‡

*Form G, III Schedule of the Indian Companies Act of 1913.

† It is a matter of supreme gratification to note that the Government of India in order to protect the interests of the depositors, has at last decided to compel the Indian Joint-Stock Banks to publish a balance-sheet on the lines approved by the Cunliffe Committee.

‡ The granting of discounts and loans on the pledge of Stock Exchange securities as collateral on account of insufficiency of commercial or personal credit is not an investment operation. The banks are here acting as mere pawn-shops for securities. But definite investment in securities, promoting and underwriting operations and capitalisation of companies are the operations of the Investment Banks and not the commercial banks. The banks should not support speculation in the value of doubtful securities with the help of its money. It is better to let capital remain idle than venture out on these investments.

This tendency to "mix" commercial banking with investment business, promoting and syndicating operations is noticeable in the case of the banks of the United States of America and Germany.

As one American banker points out "the American commercial banks have been forced in self-defence to invade the business of the 'Investment banks' and one finds that only one-third of the loans of the American banks belongs to the category of commercial finance and the balance is mainly concerned with investment purposes." Another reason why these American commercial banks have taken to investment business is mainly this. They do not find enough employment for their huge resources. "Neither the call money market in New York, nor the rediscounting of country bank paper, nor the availability through the brokerage houses of the promissory paper of a limited number of widely known mercantile and industrial establishments will absorb the excess and recourse is had to the bond market." It is not difficult to find other motives for this kind of investment finance. "The desire to escape taxation, the anxiety to become banker to some corporation or municipality and the desire to secure high profits from promoting, syndicating and underwriting business must have induced them to descend to investment financing."

The case with the German "Grossbanken" or the "credit banks" of Germany as they are generally known is however different. As Dr. Reisser says the "Grossbanken" were forced to take up all these ultra commercial operations* in order to meet "the real demand of German economic development." The German Banks do not aim solely at profit but consider the development of their industries as an important duty incumbent on them. One German Bank director while giving evidence before the American National Monetary Commission says that the "one difference between the Banks of England and Germany is that, in England, the primary purpose of the banks seems to be to secure large earnings for their shareholders. In Germany our banks are largely responsible for the development of the Empire, having fostered and built up its industries."

Another cardinal reason why the "credit" Banks of Germany were forced to conduct this "mixed" banking business was the absence of "financial agencies" and as there was no strict division of labour among the existing agencies the banks were forced as Dr. Reisser says "to occupy in the national economy the place held by the maid-of-all-work in the private household" and to take upon themselves all the tasks which in England are apportioned as a rule among numerous financial agencies other than the Joint-Stock Banks.

These were the reasons that forced the German Banks to attempt "adventuresome" banking as English critics put it. It might be wrong on their part to pursue their audacious policy of "peaceful penetration"

* The German Grossbanken perform the following banking operations (1) attracting deposits, (2) giving loans, (3) discounting bills, (4) capitalising industries, (5) floating new industrial companies, (6) regulating the value of the shares by selling and buying, (7) buying and selling securities largely on their own account. All banks are members of the Stock Exchange.

into foreign countries. Their assumption that "trade follows the bank as much as the flag" might not be wholly correct. Their policy of acting as the "brains of the industrial army" or the "general staff of German industry" might be questioned. But judging them by practical results and the notable success they have achieved so far, it is well-nigh difficult to condemn them. The remarkable absence of serious collapses* helped these banks to pursue their own policy of "mixed" banking business unhampered.

It is only in conservative England, that the commercial banks are not so daring and venturesome as to "mix" commercial banking with other lines of business however tempting they may be from the view point of profits. They still stick to their conservative lines of banking operations and refuse to transact such operations as are alien or genuinely opposed to the true interests of the commercial banks.

But the tendency to perform "mixed" banking is noticeable in the case of our commercial banks also. Several of the "Swadeshi banks" of the Punjab† attempted industrial financing and smitten with an ambition to get-rich-quick they took to investment business as well. But the inevitable has happened and almost all of them were signally punished during the recent banking crisis.

Some of the existing Indian Joint-Stock Banks are trying to follow the path of the German banks. Some of our industrial banks which profess industrial financing as their avowed mission conduct ordinary commercial banking business as well. It is indeed strange to note that the Indian Industrial Commission itself recommends the pursuit of commercial banking by Industrial banks that may arise in our country. This may be partly explained as due to their desire to make the Industrial banks profit-reaping concerns from the beginning.

The promoters and organisers of several of our banks recently started during the years 1918 to 1920 have the laudable notion of our economic reorganisation. They aspire to utilise these banks as tools for the aggrandisement of their national ambition. But they should bear in mind that this attempt at "mixed" banking business is quite a difficult and risky one. The banks should be well managed and the bank managers should be shrewd, alert and honest. The mere display

* Even in Germany, instances of bank failures due to their "mixed" banking tendency are not rare. The Leipziger Bank failed in 1900 as it advanced 93,000,000 marks to the Trebertrocknungs-gesellschaft while its paid-up capital was only 48,000,000 marks. Any number of such failures occurred in the bubble era of 1870. (Grunderjahre). The 1901 crisis in Germany was attributed solely to the reckless investing of the German Banks in industrial ventures during the years 1897-1901.

† The failure of the Hindustan Bank, Lahore, was due to advancing large sums to the Punjab Musical Association and to the Punjab Brothers Company (a speculation shop in Karachi).

The failure of the Doaba Bank was due to advancing money to the Amritsar General and Flour Mill Company, Ltd.

The failure of the Lahore Bank was due to its financing a property dealing company and a leather factory

Some of the other Punjab Banks lent money to the cotton ginning factories which were started out of all proportion to the cotton producing capacity of the province.

of ingenuity in the matter of adopting a national programme similar to that of the German Banks is not sufficient. Wise and capable management should be forthcoming. Besides it is highly erroneous to labour under the misconception that Germany's rapid industrialisation, her economic transition and the development of her foreign trade were mainly due to the helpful attitude of their banks.

Of course the policy of the German Banks interlocking themselves with industrial companies helped the development of their industries but other causes operated as well to make Germany capture many of the world markets within a surprisingly short time. Dr. P. P. Gourvitch* points out that German export articles were always adapted to foreign tastes, that there was a widespread industrial and commercial education and that German industries received extensive Government aid through different freight rates on Government owned railroads and through rebates and other shipping facilities. Dr. Reisser points out that the German Banks "combined"† to finance large industries which had more or less of a monopolistic character. He instances the Deutsche Bank of Germany which has acquired interests in the smaller banks and thoroughly controlled their policy.

Professor Hauser‡ says that Germany has effected the surprising *tour de force* of securing her financial supremacy in foreign countries while locking up very little of her own capital. He instances the cases where German banks obtained control over Italian business.

Mr. Shaw§ says that the German Banks always made it a systematic policy to obtain information about foreign customers and used their branches to act as information bureau. They always advocated German industry and obtained foreign orders for German manufactures.

Dawson|| says that "there was a development of scientific knowledge on a wide scale and that there was a close application of science to industry." Many of the big banks have a large staff of industrial experts to guide their banking officials in their attitude towards industries.

Again, the allied problems of finance, industry and transportation are treated as different aspects of one and the same problem and sometimes the German banks were undoubtedly used as tools for the aggrandisement of their national ambition.

It is apparently manifest, then, that it is entirely a misguided view to attribute the industrial prosperity of Germany and her ability to compete successfully with British and American industries, mainly to

* Dr. P. P. Gourvitch "How Germany does business."

† Dr. Reisser "The Great German Banks." The American National Monetary Commission Report.

"The Deutsche Bank of Germany is represented in 116 companies, the National Banks in 96 and so on."

Sir R. H. Inglis Palgrave also speaks of this interlocking tendency in his article on German Banks in the Bankers' Magazine, June 1910.

‡ Dr. H. Hauser "Germany's Commercial grip on the world." He says that "German finance means German control, German espionage and penetration."

§ Mr. W. A. Shaw "Edinburgh Review," 1918.

|| W. H. Dawson "Modern Germany."

the financial assistance of the German banks. The German banks have responded well to the call made on them by these various industries but the helpful attitude of the banks is only one among several factors contributing to the prosperity of their industries.

As it has been remarked already, the German banks were well-managed from the beginning. They always insisted on a high paid-up capital of their own and supplemented their resources by attracting long-period deposits. As A. D. MacLaren* says "the German banks were attracting 'time deposits' and with these they were able to grant longer credits (*long fristiger*)."[†] The German banks knew full well the dangers of locking up their "Commercial deposits" in long-period loans which would be the ultimate result of commercial banks attempting a "mixed" business. They realised that their own capital can be locked up with impunity in more lucrative but less easily realisable assets than short-term commercial paper and as the late Mr. A. Raffolovich and Conant point out, the increase in banking funds in Germany was due not to an increase of their deposit money as in the case of the English banks but due to "their genuine mania for increasing their capital."[‡] As Leopold Joseph says "the German people have full confidence in the administration of banks and in the integrity and responsibilities of the Board of Directors which are mostly composed of capable men. Stringent regulations as regards the responsibility of the Directors are in force and it is only a serious catastrophe that can shake this confidence."[‡]

It is highly reprehensible then on the part of the Indian Joint-Stock Banks to imitate the German bank tactics so long as they do not employ the same precautionary measures. It is a well-known fact that the paid-up capital of our commercial banks is very little, and ever since the days of our banking crisis, deposits generally are made for short periods, say 4 or 5 months, and it will be well-nigh criminal folly to grant long-term loans with short-dated deposits. Neither are these banks endowed with the requisite technical knowledge to pursue successfully industrial financing.

It does not necessarily follow, then, that our commercial banks should pursue a "Conservative policy" akin to that of the English and French banks.

Leaving aside the arguments of the late Adolf Wagner § and others who consider the German banking policy as eminently superior to that of the English banks' policy, as wholly irrelevant to our purpose it must be considered whether the "Conservative policy" of the English banks would suit our present national interests. Handicapped as the Indian industrialists are, by the absence of specialising financial agencies such

*A. D. MacLaren "German Banks and Peaceful Penetration." Quarterly Review, January 1919.

† C. A. Conant "Principles of Money and Banking," Vol. II.

‡ L. Joseph "The Evolution of Banking in Germany."

§ Lord Inchcape on the other hand contends that the English Banking system is superior to that of the German Banking system.

as the "acceptance houses" underwriting and syndicating agencies which abound in any number in the London Money Market a rigidly conservative policy on the part of the Indian banks would severely bar their progress for the lack of adequate capital at the nick of the time.

Secondly, the existing immigrant banks in India do not possess the will nor have they the requisite capital at their command to pursue an ambitious national programme for our economic reorganisation. These banks have not succeeded in breaking the power of the mahajan who to quote Sir Daniel Hamilton's words "is still entrenched safely behind the money-bags, while the victims of his silver bullets lie all around in heaps." These foreign managed banks do not cultivate any business transactions with the small industrialists, business men or agriculturists. As Sir T. Morison says "these are too small to interest the great financial houses." The policy of existing foreign banks favouring European firms as against Indian managed ones is too well-known to need any elaboration here. One should only read the startling disclosures of Mr. Currimbhoy A. Peerbhoy before the Indian Industrial Commission to realise the truth of this charge. These banks never forsake the cardinal principle of "safety" which commercial banks should always possess in their minds. But managed as they are by trained westerners, these cannot realise the true needs of the Indian economic situation and their exclusive dependence on their "shroffs" is indeed too patent and pitiable.

Even in England, this "quiet" policy of the commercial bank has been criticised. Quite recently the tonic of war roused the English public opinion and the English banks were taken to task for their extreme timidity and conservatism. The model of the German Banks was placed before them for imitation but they have unitedly refused to be more "adventuresome" and advocated the specialisation of each function by separate institutions intentionally designed for these purposes. The result of this agitation ended in the formation of the "British Overseas Bank" and the "British Trade Corporation" to "fill the gap between the home banks, Colonial and British Foreign Banks and to grant facilities which the existing banks are not in a position to extend."*

The doyen of the English Economists Dr. A. Marshall says the English banks should extend the scope of their work. No apology is needed to quote his well-balanced opinion *in extenso*. "While those services to which they devote most of their strength are of unapproached excellence, they make little attempt to rival German or even American banks in the direct furtherance of the large ventures of industry. By limiting their operations to a multitude of relatively small risks, they are enabled to base their advances chiefly on capital deposited with them; and therefore to return extremely high dividends on relatively small paid-up capitals. There are therefore some strong arguments both of equity and of national advantage in favour of the exertion of a slight pressure on them, by legislation or otherwise; tending to increase the ratio which their paid-up capitals bear to their total liabilities. They could then with safety to themselves and their depositors undertake a

* Report of Lord Farrington's Committee on the proposal of a British Trade Bank.

rather greater share than they do now of the larger responsibilities of the country's business abroad, as well as at home, while they would still cover so great a part of their liabilities by fluid assets, as to be certain of their ability to meet promptly further larger demands that might be made on them."*

So these British Commercial Banks, "the paragons of conservatism" as one disparaging critic styles them, do not afford the real model that our Indian Joint-Stock Banks should have in their mind.

Our Indian Joint-Stock Banks though they grasp the necessity of a liberal financial assistance to the existing industries and however much they may be animated with a desire to emulate the bold, daring yet fruitful policy of the German banks, must realise their own limitations. The small amount of their paid-up capital, the low proportion of their cash reserves and liquid assets, the short-term nature of their deposits and the absence of masterly financiers endowed with an ambition to display a Napoleonic faculty in its use, should warn the banks as to the dangers involved in extremely speculative courses or prohibit them to stretch their hands towards an absolute control of trade and manufacture.

Again the union of different operations in the hands of a single banking institution in close touch with deposit banking, has its own dangers. The task of keeping assets of a sufficiently liquid character in order to balance the demand obligations of a commercial bank is no slight one, specially when operations partaking of a permanent character, as for instance, industrial financing, are also attempted. Many an authority† has written deprecatingly of this tendency and points out that it only paves the way to commercial crisis.

The real remedy then lies in specialisation. Besides banks pursuing strictly commercial business, there should be industrial banks, investment banks, mortgage banks, and such other concerns to specialise in long-term loaning. Numerous financial agencies should be created so that our banks need not necessarily like the German banks be nicknamed "alerlei enterprisen" and maids-of-all-work or a kind of financial universal providers. There should be a strict division of labour among the existing banking institutions and those that may be created in the near future.

While realising that better success can be achieved by specialisation, these Indian banks should not forget that the real strength of the banking system depends on their recognition of their mutual interests. It is not mere emotional sentiment on the part of the existing banks that really counts. The real necessity of the situation seems to lie in a better understanding of banking business.

* Dr. A. Marshall "Industry and Trade."

† W. R. Scott says "there is an over expansion of credit caused by the exchange of investment securities for chequing accounts and that a forced liquidation of these securities to meet the depositor's call, entails a great loss and an enforced liquidation may bring about a commercial crisis."

H. M. Geiger says "that this practice of commercial banks to invest their funds has been one of the causes of industrial failures in the U. S. A. of several enterprising men who have seen their plans shrivel up and disappear under the sheriff's hammer to satisfy a note that had been "called."

C. A. Conant in his *Modern Banks of Issue* points out that the Bank of Italy, the Bank of Naples, the Bank of Sicily and the Roman Bank locked up in investments all their notes and failed miserably in 1892.

The tendency to encroach on foreign exchange business of the Exchange Banks.

Mention has been made in the previous section that the "commercial" banks are encroaching on investment banks, acceptance houses, and underwriting syndicates and are performing functions alien to their specialised business. The tendency to perform exchange business is also to be prominently seen.

The German Banks are as Lord Inchcape styles them "Clearing Banks," "Acceptance Houses," "Issuing Houses," "Discount Companies," "Promoting Syndicates," "Exchange Brokers," "Traders and Bankers."

In America, with the development of the acceptance business allowed by the Federal Reserve Act* and with the opening of foreign branches by the powerful American Banks, the neglect of the fundamental distinction between commercial operations and other banking operations is to be clearly noticed.

Some of the English commercial banks are forced by competition to specialise in exchange business as well. With the advent of powerful foreign and colonial banks,† with their huge resources to be invested in banking operations in the London Money Market, the struggle for profits became very keen and the London Joint City and Midland Bank was the first Joint-Stock Bank to handle foreign exchange business. As it successfully pioneered the way, many other London Joint-Stock Banks began to dabble in foreign exchange as well and today there is a department in some of the English Banks devoted exclusively to this business.

Some of the Indian Joint-Stock Banks, viz., the Tata Industrial Bank, the Union Bank of India, the Industrial and Exchange Bank of Bombay and a few others have taken up this business as well. The old Presidency Bank of Bombay was the first to hanker after this business. Finding her capital to be somewhat great and feeling that legitimate discount business could not successfully absorb her capital, she began to agitate in the seventies of the last century for the repealing of the Bank Act of 1876 in order to permit the Presidency Banks to deal with Exchange business. Wisely or unwisely the Presidency Banks were not granted this coveted privilege‡. This section deals with the advisability or otherwise of our commercial banks handling foreign exchange business.

* See the Federal Reserve Board Circular No. 19 (November 29 1915). Also Paul Warburg's paper in the American National Monetary Commission Report.

† There were about thirteen first class foreign banks in the London Money Market before the advent of the late War, with about £ 50,000,000 of capital to be invested in banking operations there.

‡ For the reasons that prompted the Secretary of State for India, not to accede to their request, refer to the chapter on "Presidency Banks" in my book "Present Day Banking in India," Calcutta University publication.

Foreign exchange business is a paying one and the Eastern Exchange Banks so far as their dividend is concerned and as the high value of their shares on the Stock Exchange indicates, are thriving concerns and thanks to the Gold Exchange Standard system, the speculative element in their business has been removed and a satisfactory "par of exchange" as it were is established between the silver-using countries and the gold standard ones. When this has been accomplished the Indian Joint-Stock Banks are naturally too eager to share some of the profits arising out of this exchange business.

But the Exchange Banks who have so long monopolised this business, keenly resent any encroachment on their business on the part of the newly established Joint-Stock Banks. They have again succeeded in confining the exchange business of the Imperial Bank of India, solely to its own customers, and there is really no effective competition with the Exchange Banks.

The Exchange Banks might have been actuated with motives of personal gain in their attempts to retain the monopoly of exchange business for themselves. Their contention that "the Presidency Banks which were state-subsidised institutions should not compete with them" might be valid ; but this argument will be of no avail to them against the competition of the Indian Joint-Stock Banks. Their threat that they would combine or amalgamate with the big Joint-Stock Banks of the London Money Market, if the Imperial Bank of India were to be allowed full privilege to handle the foreign exchange business, is an empty one, as the Secretary of State for India has already disallowed one such proposal recently.* Again their argument that they bore the initial risks during the years of fluctuating exchanges from 1872 to 1892 and that they should be treated handsomely for their past services by not interfering with their vested interests, is not of much weight. No perpetual monopoly can however be tolerated on this score.

It is not these trivial arguments that the Exchange Banks have brought forward in the support of their monopoly that should really deter our Joint-Stock Banks from attempting exchange business also. Banking theory lays down sound arguments why there should be a division of labour in the matter of discounting and handling domestic and foreign bills of exchange. While the discounting of domestic bills of exchange is not attendant with grave consequences to the stability of the banks, provided these banks discount first class trade bills arising out of genuine trade transactions, banking theory dwells on the difficulties attending on the operations of foreign exchange and advises that "bills" arising out of export and import business are to be handled by separate institutions known as "the Exchange Banks."

Historically viewed, money changing was the primary and original function of banking. Foreign exchange is nothing "but the buying and selling in any financial centre of the monies of other countries, that is to

* The National Bank of India wanted to amalgamate with the Lloyd's Bank but the Secretary of State for India vetoed the proposal.

say, the exchanging of foreign monies for the money of that centre."* So foreign exchange business is nothing but the exchanging of one country's money (say India's money) with a foreign country's money (say Great Britain) and *vice versa*. Hence it may be argued that our commercial banks are not undertaking any business dangerous to their prosperity or existence.

Another point which tempts the Indian Joint-Stock Banks to hanker after exchange business lies in the fact that there are few "bad debts" in foreign exchange. This feature differentiates it from domestic deposit and discount business. There is absolute freedom from risk as to the loss of principal unless there is a total failure of the parties to the bill. Losses do arise but they are due to fluctuations of exchange rates and mistakes in calculations rather than to the failure of parties to meet their liabilities.

But it must be pointed out that the conversion of foreign money into domestic and *vice versa* is no easy task and an element of speculation always enters in exchange transactions between countries having different metallic currencies. Though lucrative, this foreign exchange business is a most difficult and complicated business because the various influences that operate on the rate of exchange have to be properly understood. It requires an intimate knowledge of the trade relations between the two countries and this can be acquired only after several years' experience. The relative value of the two currencies of the trading countries should be known and any likelihood of trading expansion in the near future should be clearly realised. The business customs of the foreigners and a practical knowledge of their currency system and negotiable instruments used in foreign trade should be thoroughly mastered.

Besides overcoming these difficulties, the banks undertaking this business should avoid speculation in exchange on their own account. They should be careful at keeping their purchases and sales of exchange for various dates of delivery as nearly equal as possible. Occasionally they can make an excess of sales or purchases but broadly speaking an overbought or an oversold situation is not advisable. Their bounden duty is to help the mercantile companies who wish to protect themselves from all fluctuations in exchange by dealings in "futures," i.e., they may make immediate use of payments as credits in local currency for the purchase of forward exchange. The banks in their turn should protect themselves in their purchases or sales of commercial "long bills" by corresponding transactions in its own or other futures.

The exchange business can be conducted safely during times of peace, when the currency situation in the several countries is quite normal and when currency is highly inflated by the States as an emergency measure the situation becomes complex and the fluctuating course of the exchanges baffles all rational conclusions and scientific reasoning.

* Hartley Withers "Money Changing," p. 132.

The domestic needs or policy of the bank should be borne in mind by the head of the foreign exchange department of the bank and it is difficult to keep both the domestic and foreign operations of the bank, each involving large outlay of capital, in close harmony with each other.

Such are the complexities that are attending on the foreign exchange business. Although there is nothing inherently unsound in the proposal of our commercial banks to undertake exchange business, yet it must be recognised that they are apt to underrate the difficulties of the business and their enthusiasm may land them into deep water. So long as the banks find ample, lucrative and safe employment for their resources, there is no reason why they should particularly insist on the handling of foreign exchange business. For a safe and efficient performance of this business, the foreign exchange department must be in the hands of a trained specialist. Clerks possessing a good knowledge of foreign languages are necessary. Branches in foreign monetary centres are necessary and the incidence of cost of such branches is very high in the beginning. Agents can be employed but they may mismanage and it has been announced recently that the London* agent of the Alliance Bank of Simla failed to do this business properly and this virtually forced it to open a branch of its own in London. Again the Union Bank of India which was started about three years back with a capital of 10 crores now finds it difficult to transact exchange business and it has been proposed to reduce the capital to 5 crores. The chaotic state of the European exchanges forbids all sane people to meddle with it and so long as the depreciation of the European currencies goes on apace and no attempt is made to stay this drift by international authorities, it is not wise for those not well-versed in monetary matters to have anything to do with the exchange business.

It is only when no other avenue of successful business is open to them that our commercial banks should handle foreign exchange business. Our premier industry, agriculture, which gives occupation to 72 per cent. of our total population is almost famishing for want of capital. Instead of directing our capital to commercial banks, it behoves us to start industrial banks, agricultural banks, and mortgage banks. A connecting link should be established between the co-operative credit societies and the existing commercial banks. Our capital should be rightly used, for unless capital is rightly used, no further capital can be created.

However, for a long time to come this combination of commercial banking business with investing and promoting kind of business and exchange business will be on the increase. The temptation of larger profits is always alluring and no legislative measures can be devised to check this ominous financial combination. They must only realise that specialisation of each function will lead to better results.

* Owing to the failure of Messrs. Boulton Bros. and Co., the Alliance Bank of Simla had to open a branch of its own in London.

DISCUSSION ON MR. RAMA CHANDRA RAU'S PAPER.

MR. BHATEJA said he regretted the way in which certain facts were presented, and he wondered whether the Association was liable for defamation for any statements made in the paper. He agreed that a special type of banks for promoting industrial enterprise was required. The problem was that of financing the industries. The English banks in India lend money to large enterprises, but they do not lend to the ordinary Indian trader or the small business man. If industries are to be developed, then the gap in our banking system will have to be filled up. In Europe the State filled up the gap by starting discount houses for temporary periods; this necessity was no longer felt there and State aid had therefore been withdrawn. As regards the question of an Industrial Bank taking to exchange business he agreed with the writer that exchange business was most complicated, but he did not see any reason why the banks here should not take up exchange business provided due caution was exercised. He could not agree that we should wait until our people get specialized in banking; the millenium may take a long time to be realized.

DR. TANNAN said that unless the Government transferred the work of the Paper Currency Office to the Imperial Bank the latter would not be in a position to render such assistance as the Central Banks in European countries are doing. He pointed out that the Imperial Bank had to pay a high rate of interest to Government for loans, and so they had to charge a higher rate of interest to the trades and industries of the country. This difficulty he thought could be overcome if the Imperial Bank were given greater facilities for drawing on the Paper Currency Reserves. He would also like to see the Imperial Bank affording facilities for the transfer of large amounts of money from the Head Office to its branches and *vice versa* at practically no cost as was the case in Germany. It had to be realised that the banking needs of India were very great, and he thought that Indians could readily be trained if the existing banks gave them facilities. At present liberal facilities were not afforded by the banks, although the Imperial Bank is now forced by Government to take at least 50 % of its new recruits from amongst Indians. He explained the difficulty of opening branches when the number of Indian specialists was few and the European Manager had to be highly paid. There was therefore a great necessity for Indian young men specializing in banking so that they might take up the posts of managing agents with the Imperial and other Banks.

DR. HYDER said he wanted to emphasise the point that we could have industrial banks provided there were capable men outside, not necessarily bankers, who would manage the factories and do other work. If such men were available we could have long term loans and other banking facilities, but it will take a long time in India to get such men, and therefore, in his opinion, industrial banks will have to wait.

4 P. M. GARDEN PARTY. Members of the Association attended an "At Home" at Shahidara given in honour of Dr. Sir Mohammad Iqbal.

THIRD DAY :—THURSDAY, JANUARY 18th, MORNING SESSION.

RURAL ECONOMICS.

CO-OPERATIVE FARMS.

BY C. F. STRICKLAND, Esq., I. C. S., PUNJAB.

For the purpose of the present argument a co-operative farm is defined as land collectively owned or taken in lease by members of a co-operative society for their own cultivation. It is to be distinguished from (1) land owned by co-operators who employ other persons on a wage or a rent to cultivate it for them ; and (2) the employment by a landowner of labourers to whom he pays a share of profit on the year's transactions in addition to the ordinary wage. Under the first head fall the large areas owned and farmed in England, Scotland and Asia by the Co-operative Wholesale Societies of England and Scotland, the cultivators being ordinary employees, who are only indirectly, if at all, benefited by the co-operative movement. These estates are, however, often dignified with the incorrect title of co-operative farms. Under the second head, the mere incident of profitsharing clearly does not constitute co-operation, nor even approximate to it unless a predominant share in the control is also conceded to all active workers.

The objects of the true co-operative farm are threefold : (1) employment may be secured, in districts in which the supply of unskilled labour exceeds the demand, by a group of men cultivating a tract of land more intensively than a single owner or occupier would be prepared to do, since intensive cultivation calls for more labourers and can bear the additional cost. (2) The middleman or farming contractor may be removed if owners of large estates can be induced to dispense with him and to lease their land to a group of cultivators, the profit of the middleman being divided between the parties, the landlord receiving more and the tenants paying less. (3) A larger out-turn of agricultural produce may be obtained by improved cultivation, and the nation's wealth thereby increased. Except in so far as intensive cultivation provides more occupation and therefore more wages, this last object is appropriate to the ideas rather of organisers than of the cultivators themselves. The country gains through co-operative organisation of individuals whose primary aim is their own security or profit.

This system of farming has won its most notable success in Italy, though widely spread also in Roumania and found in scattered instances in other countries including England. Italian statistics are imperfect, but the number of existing farms in 1920 was estimated at 500, holding perhaps 200,000 acres, in addition to an equal area under semi-co-operative management by the State in a backward province. The movement is promoted alike by the Catholic and the Socialist parties, who favour opposing methods of divided and unitary management. On the former method the land held by the Society is leased to the members in small holdings, which, though not proprietary, may

be continuously occupied by the lessees, and on the death of a member are usually leased again to his heir. The holdings are, however, subject to adjustment in accordance with changes in the size of a member's working family; and since it is not permissible for any member to sub-let a field or to engage wage-earning labourers, his holding will be reduced if it exceeds his cultivating capacity, and in the reverse case may be increased if land is available. Some Societies in fact resort to a regular re-allotment every few years. The alternative method, preferred by the Socialists, to many of whom the institution of property is, theoretically at least, abominable, is to retain the administration of the land entirely in the hands of the Society on a unitary system: a skilled manager is appointed who directs the agricultural operations under the general control of the managing committee. The labourers and cultivators receive a regular wage while employed and are also entitled to a share in the annual profits: a part of the wages is frequently withheld until the conclusion of the year as a guarantee against possible losses and against disloyalty. In localities in which agricultural unemployment is recurrent, the members may prefer to prolong their employment and the receipt of even a diminished wage so long as the funds allow, abandoning the hope of a dividend and of the deferred balance of their wage.

These two types, in Italy and elsewhere, represent the rival doctrines of co-operative farming. In practice innumerable stages intermediate between them are accepted in one place or another. An extreme case of divided management will be the Society which either purchases land and re-sells it to members with full rights of ownership, itself thus ceasing to exist when the transfer has been completed, or which acknowledges a formal or conventional right in its lessee-members to a permanent and hereditary possession. A different class of Society will reserve a portion only of the land to the central management for collective purposes, such as the stabling of livestock and machinery, the growing of fodder, the storage of seed or of harvested produce. The Small Holders' Societies in England adopt this plan, hiring their land by collective lease in preference to purchase from county councils or individual landlords and sub-dividing among their members all but a few acres. Only one purely unitary farm of working cultivators was known to exist in England at the time of an inquiry made in 1920. Yet other Societies are found which surrender holdings with greater or less permanence to their members, the latter in return binding themselves to certain agricultural methods, either in the use of expensive machinery which could not be purchased unless its adequate employment were guaranteed, or by participation in a common agreement, *e.g.*, with an authority supplying water for irrigation. Purchase of land by co-operative cultivators in Italy or elsewhere is comparatively rare, since it locks up a larger capital than they can well afford and ties them to an ownership which the taxation of agricultural land (fully as heavy in most European countries as in India) may render unremunerative.

A third main type resembling the Society with unitary management is to be observed in the agricultural guilds now springing up in

England under the influence of the National Guild propaganda, the objects of which are:—(1) permanent employment of workers; and (2) work for the service of the community, not for personal profit; *i.e.*, the worker receives a constant and reasonable wage, even if there be insufficient work to do, and the profits of the undertaking, if any, are devoted, firstly to improving the conditions of employment, and secondly, to reducing the price at which the product is supplied to the community. These agricultural guilds appear to resemble co-operative farms under unitary management with a special and fundamental—provision as to the disposal of profits.

The several varieties of internal organisation above described are adapted to the different ends which the co-operative farmers in each locality have principally in view. In an Italian province such as the Emilia and in parts of Sicily, where unskilled labour for both agricultural and industrial purposes is perennially in excess, the unitary management of the farm is effective both in distributing over the maximum number of persons the available work and in disciplining the labour mass for redemption and improvement of deteriorated land and for that high cultivation which alone can meet the original cost. Though the individual cannot be described as contented, he recognises that he is more fortunate as a labourer under his farming society than if he were a mere unit in a drifting crowd of surplus men. In other provinces where unemployment is not a chronic trouble landless men or tenant cultivators aspire rather to establish themselves as occupiers or owners of their own farms, and even the Socialists are forced to make large concessions to this preference for independence. The co-operators who obtain a lease for a term of years, on a rent possibly enhanced to cover the anxiety of the landlord as to the financial stability of the Society, are satisfied with possession of their home and land, and hope so to extend the system of collective leases to the exclusion of contractors and middlemen, that they may feel themselves free from these competitors and therefore secure in their tenure. The object of excluding the middleman is equally well attained by all types of farming society; though it should not be supposed that all middlemen are bad farmers, especially on soils and crops requiring the application of capital, yet many are deficient in agricultural knowledge or experience and all tend to be indifferent to those minor demands of the labourer or tenants, *e.g.*, in connection with housing, which make so overwhelming a difference to his happiness. When, however, we compare the varieties of farm in respect of their third aim, the increase of agricultural outturn, the superiority whether from the point of value or of quantity is entirely on the side of undivided management. The unitary Society employing a number of men under a single administrator naturally selects an expert for the post whereas a group of semi-independent tenants appoints one of its own members to be President and Manager and depends for skilled advice on the services of a travelling agriculturist who visits the estate from time to time on behalf of the Government or of the Union to which their Society belongs. A comparison of the outturn on the co-operative farm of Belpiano under the administration of an individual landlord

and under a co-operative society will illustrate the advantages of the unitary system. Area of the farm 290 acres :

<i>Produce in a year under private management.</i>		<i>Produce in a year under co-operative management.</i>	
Wheat	574 mds.	Wheat	1,728 mds.
Maize	430 "	Maize	1,588 "
Oats	10 "	Oats	90 "
Grapes	70 "	Grapes	194 "
Tomatoes		Tomatoes	1,110 "
Seeds	3 "	Seeds	13½ "
Silkworm cocoons	2½ "	Silkworm Cocoons	9 "
Working livestock	23 head.	Working livestock	48 head.

The increase in the number of working individuals is not recorded ; the outturn per individual cannot therefore be compared. Nor again are similar figures for comparison forthcoming from a co-operative farm with divided holdings, for in such a case the collection of statistics is not easy, and since the land thus leased by co-operators was frequently, though not always, already in divided holdings under the middleman, the system of cultivation has not undergone a radical transformation at the hands of co-operators. Even, however, when allowance is made for a possible partiality in the institution which collected the above data (which are based on actual farm records), the agricultural improvement is sufficiently obvious to require no argument.

Rural unemployment being rare in the Punjab, the severity of unitary management will doubtless not prove acceptable to co-operators in this province who may wish to embark on a collective ownership or hiring of land. There may, however, be varieties of crops or circumstances which enforce such a joint tenure. It may be convenient in Bengal or in other crowded areas with which the writer is not familiar, to maintain united management both as a safe guard against unemployment and on grounds of agricultural advantage. A tea garden for instance would be best operated in this way, and on the occasion of the next Assam strike it is suggested that such an experiment be tried. It is also logically arguable that the agricultural area which it has been proposed to grant in a Punjab colony to tenants who should be bound to grow a certain proportion of sugarcane for a central cane-crushing and sugar-making factory may be better granted to a co-operative association handling the area as a whole, paying a regular subsistence allowance to its working members and distributing at the end of the year a further rebate on their wages and a limited dividend on capital. It does not appear probable that without some form of compulsion the Punjabi peasant will abandon his desire for a separate holding of his own, and in the absence of general unemployment such compulsion can only be applied by means of conditions attached to a Government grant of land. The unpopularity of a grant on these terms would only be faced by Government in furtherance of a special scheme, such as that of a sugar factory, in which economic policy might recommend a central control.

It remains to consider whether co-operative farms of the divided type can usefully be established in the Punjab or other Indian Provinces. Wherever a contractor interposes between the landlord and the individual cultivator, it is clearly desirable to substitute for him a co-operative society of tenants, financed by a credit society or a central co-operative bank, and acting towards the landlord in all respects as does the present middleman. The society should in fact be the middleman and should exact at least as high a rent from its members as does the independent contractor; the annual profits, after a sufficient sum has been carried to reserve, can be distributed as a rebate on the rents. *Prima facie* the landowner does not appear to gain from the proceeding; if that is the case, he is at least no loser; and if he is irrationally hostile, it should be practicable to bring him to reason by a tenants' boycott. On the other hand, it is justifiable to hope that tenants working in a society will be induced by their co-operative advisers to improve their methods of cultivation; the landlord will then benefit by the enhancement in the value of his land, by a more profitable share of the crop if rent is paid in kind, or by a higher cash rent when the lease falls due for renewal. Conditions suitable for such societies exist in numerous villages held by yeoman grantees and capitalist purchasers in the Punjab colonies, and also in a few old proprietary villages in which the tenants are not long-established residents; such proprietary estates abound in other parts of India and when leased to middlemen offer a proper field for co-operative farming, but it will be more difficult to bring together for a collective lease those tenants who, though not enjoying rights of occupancy, have nevertheless been cultivating the same lands without disturbance for several generations; they will prefer the friendly personal relation between landlord and tenant which there is no advantage in upsetting. The enemy of co-operators is the middleman, not the landlord. In the Punjab colonies the lessee of a village of a large holding is often the village money-lender, who in his double capacity is able so to confuse his various business transactions with the tenants, and so to dominate their daily economic and social life, as to plunge them in inextricable debt. Co-operative credit cannot save them, since when pressed by a creditor they are ready to migrate; while co-operative credit requires a certain minimum of stability; such stability can best be created, and the hope of escaping from indebtedness best excited, by uniting the tenants in a lessee society.

(It should be remembered that the average Indian peasant does not conceive that freedom from excessive debt is possible: he will only begin to make efforts when he has learned to hope). A very real danger in lessee societies, as experienced in co-partner building societies formed by tenants, is the tendency to demand too low a rent: just as consumers' societies on the Rochdale system charge the full market price for articles sold, and pay back the surplus to members as an annual rebate on purchases, thereby building up a reserve fund and guarding themselves against the eventuality of losses which in any year may leave no rebate to repay, so the lessee society must recover a full rent from its members, and after carrying a part to reserve distribute the remainder as a rebate

on rents or other economic dealings; the fund to be distributed will be formed by the margin between the rent paid to the landlord and the rents charged to the tenant members (a non-member tenant will receive no rebate), and also from transactions of collective purchase of seeds, agricultural implements, or domestic requirements, and of collective sale of produce. Such undertakings of purchases and sale will more readily be faced by tenants each of whom is liable—with unlimited liability—to pay to the landlord the full rent due from the society; and who will all in consequence realize the importance of helping each other to earn sufficient profits for each to pay his own rent to the society. Similarly the purchase and preservation of improved varieties of seed and implements and the adoption of more scientific methods, will appeal to men who have an economic and urgent interest in each other's proceedings. One reason for the prevailing retrograde and careless cultivation in the Punjab and doubtless elsewhere is that the cultivator feels responsible to no one but himself; if he prefers leisure and mental-indolence to thought and consequent profit, he believes himself to be the only sufferer. In this he is entirely mistaken, as any English landlord would make him realize, but he can only be shaken out of his mistake by combining his liability and that of all his fellows in a collective responsibility. The burden of a joint rent will renew that stimulus to activity which was formerly provided by the joint liability of the Punjab village for its land revenue, but which has been removed by the progressive reduction in the real weight of the assessment. The big landlord in villages suitable for co-operative leases is beyond the reach of such an appeal to the pocket, since the revenue, just as in Bengal villages under permanent assessment, means economically little to a big landlord; the tenant on the other hand may be more accessible through his rent.

It will be open to a co-operative farming society to pay rent to the landlord in cash or in kind as local custom or convenience may dictate. An absentee landlord will normally prefer cash. The society likewise can recover rent in cash or kind from its members. The advantage of a cash rent is that the lessee society and the cultivating members know that all additional profit earned by their intelligence or industry accrues to them only; but since the payment of a cash rent in years of unexpectedly poor harvests is uncertain, and the landlord will often be harsh to an impersonal lessee society, it may be wise to stipulate for payment to the landlord in kind until a reserve fund has been accumulated, and thereafter in cash. A rent in kind, taken by the society from its members, offers the advantage of uniting the members and the society in interest, a share of each man's visible crop being the property of all members, and also of inciting them to collective sale of their own surplus produce together with the share which the society has to sell on its own behalf. On the other hand collective sale being risky and tending to speculation, will perhaps be deferred until after the accumulation of a reserve fund. The most prudent course for an infant society will be to pay kind to the landlord and receive kind from the tenants, converting the landlord's rent to cash when its funds can meet the strain of two successive bad harvests.

No co-operative farms have yet come into active being in the Punjab, and it is difficult without first-hand and detailed information from a co-operator, to estimate the worth of the experiments mentioned in the official reports of co-operation in other provinces. The zamindari societies of Bengal are of a capitalistic nature and are formed by non-cultivators: two at least of those existing in Madras appear to be rather ventures in contracting than associations of workers. A farming society of genuine cultivators belonging to Gujrat District in the Punjab has been registered and intends to hire land for cultivation by its members, but has not yet secured a lease on acceptable terms. Another project to finance the tenants of a large estate in purchasing their holdings has been discussed, and if this scheme matures it may prove convenient to vest the ownership in one or more land-purchase societies which can offer a more tangible security to the financing body than that of numerous and unpunctual peasants. The societies would no doubt be able to extend the term and lighten the instalments by which disunited individuals would otherwise be expected to contribute their purchase money. An exceptional opportunity for a farming experiment has been missed, in the writer's opinion, in connection with a grant of 100 rectangles (2,500 acres) of "bara" or low-grade land in Montgomery colony made by the Punjab Government in the past year to co-operators of some villages in Gurdaspur, Hoshiarpur and Lahore Districts, the former lands of which have been damaged by natural forces. The grants have been made to the Co-operative Credit Societies of the old villages which will nominate the cultivators, and though there is no reason to doubt that the grantees will make satisfactory arrangements for the cultivation so far as the conditions imposed by Government are concerned, yet the owning societies will be absentee landlords, and either the frequent rotation of tenants from the old home will diminish the vigour of the cultivation, or the nominees if allowed to remain continuously in occupation will acquire an interest and a moral claim divergent from that of their remote society-landlords. The land should have been given to *new* societies, to be formed in the colony villages by those members whom the old societies nominated for settlement, and the settlers should have been required to surrender their minute shares in the old homeland when proprietary rights in the colony were conferred. The societies would then have been landlords, but their component members would have been the tenants only, and a sufficient unity of interest would have been established to insure that attentive and progressive cultivation without which the low-grade lands in question will not be profitable. Future grants, whether of low-grade land in Montgomery, or of ordinary land in colonies hereafter settled, might be made on these lines.

Three minor objects, desirable in themselves, are attainable in the Punjab through co-operative farms :—

(1) Whether the land be bought or hired, the society will serve as a buffer between the cultivator and the subordinate staff of the revenue and other departments, from whom he is exposed to certain exactions. If the society owns the land, it should be the headman of

the village ; and whether the society is owner or lessee, it should perform the duties of the patwari (village accountant) and draw his pay and lawful fees : the secretary of the society would be as familiar with the records of the estate as any patwari, and far better acquainted with the true condition of the crops, the facts of cultivation, and the health of the human and animal community. A prudent society will employ a patwari as its Secretary.

(2) The curse of pre-emption will be lifted from those village communities in which a farming society becomes the landlord, since the admission of a new comer to membership will be dependent on the consent of the existing members.

(3) Fragmentation of holdings, and the consequent need for consolidation by repartition, will be reduced to a minimum, since the tenants who compose and control the society, though normally reluctant to disturb the possession of any well-behaved member of their body, will have ultimate power in general meeting to insist on a redistribution. This power will no doubt readily be used in cases of inheritance, and a separation of holdings prevented by necessary exchanges, for it must be remembered that the heir will be dependent on the consent of the general body for his admission to the holding of the predecessor. It will be to the public interest to encourage a similar demand for redistribution if one member believes that the land of another can be more profitably cultivated by himself than by the present tenant ; the successful farmer should have his holding increased, experimentally at first, and permanently if he justifies his claim by a better outturn.

Assistance from Government, other than the advice of the co-operative staff which will in the ordinary course of its duties be promoting the creation and prosperity of the farms, will seldom be required. The help of the Agricultural Department will be forthcoming so far as its limited personnel allows, and unions of co-operative farms will be well advised to engage their own experts at their own cost. The agreement of the revenue staff with regard to the post of headman, and of the revenue and irrigation departments with regard to the duties of the patwari must be won by the success of a few societies experimentally appointed to prove their capacity. A separate outlet for canal water on irrigated lands will also be a valuable privilege. Loans from the State to finance the farming societies, which are freely given by the Italian Government through the National Institute of Co-operative Credit, should be superfluous unless the creation of farms in large numbers and in a short period is contemplated : only the settlement of a new canal colony on co-operative lines, as suggested above, will necessitate a considerable advance of State money ; otherwise the Central Co-operative Banks should be equal to providing the sum needed in excess of that which tenants can contribute by selling their jewellery and their surplus cattle. If the tenants will not make this sacrifice, the Banks may well hesitate to lend to them. A general circular order from Government should invite administrative officers to examine with attention and favour all reasonable offers of a farming co-operative society for leases

of State lands and should confer on such a society the right of preference when its bid is equal to that of a private contractor or landlord. This preference is granted in Italy : in India, however, it will be ineffective unless officers of Government abandon the vicious practice of accepting an extravagant bid and afterwards remitting a part of the sum due in response to the supplications of the incautious or malicious bidder. A middleman who excludes the cultivator from a lease of available lands by offering an excessive rent must be held to his bargain in order to temper his hastiness or restrain his jealousy. His co-operative competitor can beat him on fair ground and will ask for no remissions.

DISCUSSION ON MR. STRICKLAND'S PAPER.

MR. STRICKLAND in introducing his paper pointed out that the object was to increase the agricultural outturn. In a system of co-operative farming it would be possible to introduce improved methods of cultivation and also to have skilled persons to guide the cultivation of the different crops. These skilled persons would examine the capacity of the land to produce certain crops and could recommend its utilization to the best advantage. This was not possible under the system of individualistic farming, and moreover the individual farmer particularly in India was not in a position to indulge in experiments in new methods of farming. He illustrated the advantages of co-operative farming from the history of Italy. One great advantage was that the State under a system of co-operative farming could more easily give assistance to farmers. He showed by reference to figures that the burden of Land Revenue in the Panjab was very much lighter than the corresponding burden in Italy, and gave it as his confirmed opinion that the average Panjabi peasant was much better off and more intelligent than the average Italian peasant. He saw no reason why the system of co-operative farming should not be introduced into many parts of India. He recognised that it should be possible in highly congested areas though in scattered areas the people were often too conservative to part with their small holdings.

The first speaker said he was most doubtful about Mr. Strickland's comparison of the Italian and the Panjabi peasant, and asked the writer if he had sufficient evidence to show that the conditions of large peasants in northern Italy was worse than that of the Panjabi peasant.

PROFESSOR JEVONS complimented the reader of the paper and asked him to explain the sort of State assistance received by the co-operative farms in Italy. He pointed out the illustration of Russia where the Government had introduced State farms which were run on capitalistic lines with profits to the State. The experience of Russia also showed that it was not practicable to start co-operative farms in congested areas and that it was most successful in larger areas of waste lands very far from the inhabited villages. Finally he concluded that individualistic spirit was too strong in India and that 50 to 75 % of the cultivators refused at first to go into co-operative organisation.

DR. HYDER desired to know whether the average Panjabi peasant was much better off than the average Italian cultivator, or whether Mr. Strickland had not particularly in mind the cultivators in the new Canal Colonies of the Panjab. He would further like to know how Mr. Strickland had arrived at his conclusion—whether he had simply compared food and clothing, or had taken account of such items as education, sanitation, etc.

The next speaker said he would like to ask the writer what sort of tenure the establishment of co-operative farms would give. It had been said by one of the speakers that the day of the small holder was doomed, but he was rather of opinion that the modern tendency in Central and Eastern Europe was to split large holdings into smaller ones. As regard State assistance, he felt that the best help was self-help, and that co-operators must work for themselves and must not depend upon the State. Even in Italy, State aid had been given only under pressure. He thought there was ample scope in the Panjab to try the experiment.

MR. MYLES said that instead of the day of the small holder being doomed as one speaker had stated, he thought that in many parts of the world it was rather coming. He showed that the economic causes which had operated in England in the direction of large holdings in the later 18th and the early 19th century had now been considerably modified through the improvements in transportation, which had facilitated the importation of food stuffs. One effect was a new demand for small holdings, but such of these as he was familiar with particularly in Scotland were not backed up with a good co-operative organization.

MR. STRICKLAND in reply said that in regard to the kind of State aid, the Government could lend loans to these Co-operative Societies without security, whereas in the case of individualist holdings they would have to take securities when granting loans. He thought that the Panjab Canal Colonies offered a good opportunity to try the experiment. He explained that in Italy large areas of land had been given for this scheme by religious bodies, and he thought this example might be followed here. He finally regretted that time did not admit of his answering all the points that had been raised.

PROGRESS IN THE CONSOLIDATION OF HOLDINGS IN THE PUNJAB.

By H. CALVERT, Esq., I. C. S., REGISTRAR, CO-OPERATIVE SOCIETIES, PUNJAB.

In a recent number of the *Indian Agricultural Journal** I gave an account of the experiment which we are making in the consolidation of scattered holdings in the Punjab; since that was written (September 1921) considerable progress has been made and much valuable experience has been gained. I propose now to bring the account up to December last.

The work has been chiefly carried on in the central districts of Jullundur, Hoshiarpur and Gurdaspur; these districts enjoy what is for this province a moderately good rainfall; two are sub-montane, and the third, Jullundur, has long been known for its fertility as the "Garden of the Punjab". They were cultivated at a time when districts to the south and west were barren wastes; the presence of a plentiful supply of water only twenty or thirty feet below the surface led to the construction of wells in a period when the possession of a well was a sign of wealth and prosperity; land could be mortgaged here when it was hardly worth owning elsewhere; it commanded a price at a time when land in other districts was almost without value. In a province of precarious rainfall, these districts became populous while others remained thinly inhabited and they have continued decade after decade to be the most congested tract in the province. According to custom, the land of each peasant proprietor has been divided equally amongst his sons, or his sons' sons; in the course of time, new fields have been formed out of the waste where it seemed that the effort would bring a reward; families have died out and left their lands to distant relatives; others have become poor and have been compelled to sell part or the whole of their property;† others again have been more fortunate and have been able to acquire plots here and there and add them to their possessions. In some cases, brothers have kept their possessions in common; in others they have divided it into shares; and where partition has been made, it has become customary for each co-sharer to get a part of each kind of land, and even of each field. Generations of inheritance and partitions, of purchase and sale, of breaking up the waste and abandonment of unsuitable fields, have led to the holdings of each family or owner being scattered all over the village area in anything from four to forty or even more separate small plots. In short the Punjab reproduces the same feature of excessive fragmentation which has characterised France, Germany, Japan and other countries, and this feature has become most marked in these districts of Jullundur, Hoshiarpur and Gurdaspur. The evil has long been recognised, but it has been accepted as an evil for which no suitable remedy has been found. Mr. Keatinge in Bombay prepared the ground for action by collecting information as to what was being done in other countries by legislation and otherwise and his work attracted attention here, with the result that the Financial Commissioners directed a pamphlet to be prepared showing the benefits

* Vol. XVII, Part I.

† When a man has inherited through the female line, he has frequently been compelled by public opinion to sell the land back to other owners in the village (Joseph: Rohtak).

which might be expected from consolidation. Their interest in the matter led me to consider the practicability of an actual experiment, and to try to put forward a scheme which might prove attractive to the small owners of the province.

Before I pass on, it seems necessary to distinguish this work of consolidation from a measure with which it has sometimes been confused namely *killabandi*.

Killabandi is officially defined as the substitution of rectangular fields of the uniform size of one *killa* each for the irregular fields, some minute, others inconveniently large, and all of haphazard shape, into which the lands of a village are ordinarily found to be divided. The actual size of a *killa* is of minor importance; it is an acre or something similar. As originally devised, *killabandi* was to be applied to waste areas only; but its advantages where canal irrigation was beginning were so great that it was decided to introduce the measure into old proprietary villages wherever possible; the success attained has led Government to make its adoption a condition of irrigation from a perennial canal.* This *killabandi* really consisted in laying out a village area like a chess board; it gave straight water-courses, even-shaped fields, and much convenience in the application of canal water. It provided a permanent measurement of the village, with fields in areas which the most ignorant peasant could understand; it saved constant disputes as to field boundaries, as these boundaries were all in straight lines; it facilitated crop inspection, and enabled owners and tenants to check the demand for revenue and water rates, for these were given per *killa*.† Another great advantage was that it enabled the people to manage their affairs without the interference of the patwari. The system has proved very valuable in several districts where canal irrigation has recently been introduced, but it has not been considered desirable to introduce it into other districts. Where the population is heavy, where land is valuable and where holdings are small, it has been the opinion that in the eyes of the people the amount of dislocation caused by the change would outweigh its advantages. An attempt to introduce it in Karnal failed and the Settlement Officer wrote that "it was soon evident that the self-cultivating owners of the Eastern Punjab were not disposed to accept a system which partitioned their best fields and obliterated the boundaries of their ancestral holdings, offering them only in return the remote advantages of more accurate canal assessments and possible immunity from remeasurement. The only success achieved was in estates owned by single proprietors, who recognised the advantage in having fields of a uniform size for calculation of their rental. Elsewhere the system was definitely abandoned."‡

The main idea of *killabandi* was thus to secure a uniform and convenient size for fields, with straight boundaries; it was quite distinct from the attempt to collect the scattered areas belonging to the same owners into solid blocks; indeed, it was expressly prescribed that "efforts should be made to cause the least disturbance of existing hold-

* Settlement Manual, Appendix XIV.

† See para. 33, Sett. Report, Hafizabad.

‡ Karnal Sett. Report, para. 33.

ings possible, and unless the people specially desire it, no attempt should be made to amalgamate holdings scattered in different parts of the estate".* So far from *killabandi* being comparable with consolidation, it was almost antagonistic to it as the official order was that each *killa* should be given to the man who owned most of it before, † and the total number of fields was sometimes increased, instead of decreased ninety per cent. as in consolidation. In some cases, it is true that the owners gave up scattered fields and consolidated their holdings,‡ and to this extent there was real adjustment, but this appears to have been an incident in the process of *killabandi*, rather than an essential part of it.

It is interesting to note that even against *killabandi*, there was considerable opposition; at first all the villages refused to have anything to do with it; the patwaris misled the people with tales of government treachery and foretold confiscation of property.§ Also it is worth noting that even this beneficent measure was not applied to land attached to wells and other valuable plots near villages where subdivision is minute.||

Enough has been said to show that *killabandi*, valuable though it is, is not the same as consolidation; in a few cases it was accompanied by consolidation, but the official orders incline to restrain the attempt to combine the two. In consolidation, the owners are assembled together after much preliminary preaching, and when all have agreed to the principle of amalgamation of scattered plots, and to the qualities of land they wish to be considered, each in turn is asked to indicate upon the village map the spot where he would like to have his parcel of land; when this is completed, the staff proceed to work out areas so that each owner shall have his land around the spot chosen. This involves much adjustment and unending search after compromise; but as the advantages are more and more clearly and more and more generally recognised the desire for the compact block of land becomes stronger than the desire for the particular spot, and minor differences melt before the joy of a compact holding. The actual process may take weeks or months, but the trouble is amply repaid by the results achieved. In carrying out *killabandi*, there were many disputes, leading to re-adjustment by higher authorities, and many appeals which had to be dealt with in the usual way. In consolidation, we have to get everybody satisfied before we approach the Revenue Authorities, as one successful objector might upset the whole arrangement.

* Settlement Manual, Appendix XIV.

† C.F. amongst other references para. 25, Settlement Report of Gujrat.

‡ Sett. Report, Wazirabad, Sharakpur and Gujranwala tehsils, para. 28, also para. 31 of the Report on the Hafizabad Settlement :—"In villages where the owners were reasonable and on good terms among themselves, they allotted the *killas* amicably in consultation regardless of previous possession, thus avoiding having each one's fields scattered about in all directions, the officials merely making entries in *khataunis* in accordance with such distribution and assisting at the end in making up deficiencies and reducing excesses compared with shares".

§ Sett. Report, Hafizabad, para. 29.

|| *Ibid.*

When I first made the suggestion to a number of owners that the Co-operative staff should try to effect consolidation, opinion was practically unanimous that local difficulties would prove too great. However, we had gained considerable experience of what could be done by steady preaching; we knew that we enjoyed the confidence of the people; we had in our societies men who had grasped the fact that great advantages were open to those who would sit down together and try to solve difficulties on a basis of equal treatment for all, and we thought that by patient persistent propaganda we should in time find a village where the owners would at least give the system a trial. A scheme was drawn up and placed before the people; experienced members of the staff worked hard in villages where the co-operative spirit was strong and finally succeeded in persuading some members to allow us to show what could be done with one or two small areas dependent on rainfall and so of less value than the rest. The work proved very difficult, but the importance of the subject was so great that the Financial Commissioners secured for me with effect from 24th March 1921, a special staff of two Inspectors and ten sub-inspectors to carry out the experiments. The sub-inspectors were selected from amongst patwaris for their honesty and sympathy with the zamindars; the Inspectors were selected from Kanungos on similar grounds. In spite of the financial stringency, Government has continued to provide funds for this small staff. The result of 20 months' work is that we have definitely passed through the experimental stage into that of positive achievement; we can now say that the people can be persuaded to repartition their lands into compact blocks, and that they fully realise the many advantages to be gained. In theory, the task seems simple enough; but the obstacles are very great. It is still a new idea, and old men do not like change. Widows, with a life interest only, do not see why they should be troubled with what appears to be a very risky exchange; they assume that they will suffer while stronger men will gain; the interests of minors require careful safeguarding; in many villages one or more owners may be absent in America, or Australia, or in a canal colony. Then there frequently seems to be present the memory of a sad experience over the partition of common land where the village patwari behaved dishonestly; even now the patwari generally opposes the measure just as he opposed *killabandi*; his earnings depend upon the amount of disputes and litigation in his circle, he has a small income from the supply of copies of the records and this will disappear; his influence is usually the greater where the records cannot be understood without his help, and the new records are so simple that understanding is easy, where he is himself an agriculturist he is now beginning to assist, but in other cases his influence is against us. Mortgagees have frequently acquired rights over scattered plots, and when credit was given with difficulty it was the best plots which were offered as security; naturally there must be good land given in return. Here again the opposition is disappearing. Then occupancy tenants possess in particular plots peculiar rights under different owners, and they fear that by the exchange their rights will suffer. Owners have, however, been very straightforward in dealing with these tenants, and this obstacle is rapidly giving

way before a better realisation of the advantages. In parts of these districts, and particularly in Hoshiarpur, there are hill torrents, known locally as *Chos*, which do great damage to fields. Every year there is loss, as the light sandy soil gives way before the flood. That this is not a fanciful picture will be clear when it is understood that about one-third of the land in one tehsil is subject to such damage. Now when an owner possesses small plots which are scattered all over the village area, it is one or other of these small plots which get carried away; but if his plots are consolidated into one block, then it is the whole block which may be in danger. This difficulty prevents much progress being achieved in a large tract but efforts are being made to surmount it by arranging the blocks so that each one impinges upon a torrent bed. The danger will thus be shared by all the owners, while each will have part of his land which will be comparatively free from risk.

Then there are difficulties arising from differences in the quality of the land; hitherto, the owners have offered for consolidation their *barani* land, that is the land dependent upon rainfall. But even this varies in quality and this necessitates each owner having a block of each kind. This difficulty also is becoming less marked, as owners are showing more readiness to give up quality for the sake of compactness.

There is one more difficulty that must be mentioned. The staff have not only to get each owner satisfied, but they have to get them all satisfied at the same time, and they have to convince the tehsildar when he comes to attest the new proprietorship, that they are all satisfied. That this is a difficult test will be appreciated by anyone who knows how hard it is to get the officials of one department to approve of anything done by another; but this very difficulty is an excellent safeguard against dishonesty on the part of my staff. Any favouritism shown as a result of corruption would be exposed before the tehsildar as all the people concerned have to signify their satisfaction before the repartition can be entered in the records.

So much for the obstacles, now for the results. In all, consolidation has been carried out to greater or less extent in 126 villages; it is being now carried out in several more. From this it must not be gathered that the whole area of these villages has been repartitioned. The owners usually give us a portion only at first, and see what we do with it; but the most convincing tribute to the work is that a further portion is not infrequently offered as soon as the first has been finished. Usually the whole rain-irrigated (*barani*) area is first offered; but sometimes it may be that only the Mohammadan or the Sikh section of the village will come forward with their land, and the remainder offer their holdings when they see how nice the first area looks.

In all some 8,500 persons have offered their rights for consolidation; thousands more are ready and will be dealt with as soon as their fellow owners have come round to the same view.

The area so far dealt with is rather less than 20,000 acres. In my previous account I gave details for the number of fields before and after consolidation and have been taken to task for exaggerating the work done. A careful investigation, however, showed that the decrease in

the number of fields is by no means a very inaccurate measure of the success attained. However, we now have tried to count the parcels held by each owner or body of co-sharers before and after consolidation. We may, I think, say that about 35,000 scattered parcels of land have been consolidated into 4,500. The average area owned separately in one place has risen from half an acre to 4 acres.* Perhaps, the result will be clearer if I give actual instances.

In Sargundi (Tehsil Phillour), the 19 Sikh owners had 182 fields in 157 blocks, each has his land now in one place. One owner had his land previously in 26, and another in 24 different places; the average was 8 places per owner. The blocks are so arranged that as far as possible each touches a road, so that access is obtained without crossing the field of another. Two owners had only one block each before consolidation, so that it might appear that they had gained nothing from the change; but in each case, the plot has been moved so as to touch their well-irrigated land, with the result that they were bearing sugarcane, while the old plot was under *chari* (millet). The man who formerly held land in 26 different places has now a compact block of over 18 acres. The other half of the village is owned by Mohammedans who are awaiting the return on leave of one of themselves, before they follow the example of their Sikh fellows.

In Goraya, a small plot of rain-land (*barani*) was first consolidated, and the experiment was so successful that a large block of well-irrigated land was offered. The net result is that 543 fields owned by 24 owners (or bodies of co-sharers) which were in 494 different blocks have now been re-adjusted into 84 blocks. Owing to the local features, there had to be separate blocks for (1) *chahi* or well-irrigated land, near wells, (2) for *chahi* land distant from wells, (3) *barani*, or rain-irrigated land, that is to say that most owners had to be given two parcels of *chahi* land, as it was not possible to give to each all his *chahi* land near to the well. The happiest man there at my inspection was the owner of the smallest area. He had rather more than one acre, but it was scattered in seven different places; now he has one plot near a well and another in the *barani* area. In village Semi, the success was most marked; 494 blocks had been consolidated into 42. The Secretary of the local Khilafat Committee had his land gathered from 12 different places into one. Another owner had had his land in 44 places; it had all been collected into one solid parcel of 20 acres near to his well. An interesting case here was an occupancy tenant who was formerly poor and in debt with part of his land mortgaged. He joined the local co-operative credit society twelve years ago, and has now paid off all his debts, redeemed his mortgage, and has got a consolidated plot in which he has sunk a well out of his own money saved through the credit society. There are still some people who do not believe in co-operation; I wish they could have a talk with that man. The smallest owner here has had eight scattered plots consolidated into one.

In Chomo, up to the time of my inspection, 1,367 blocks had been replaced by 153; and the work was being continued with much

* Under the original scheme, the repartition was to be temporary for four years only. With one single exception, possession has been exchanged permanently.

enthusiasm as the owners have offered the whole area of the village for consolidation. Usually it may be said that the number of fields is reduced to one-ninth or one-tenth of the former figure and the average area is increased nine or ten times. If we count, not fields, but blocks, then the reduction is to one-sixth or one-seventh of the former figure. In 33 villages in one circle dealt with last year, the average area in one place owned by each owner was about half an acre, now it is over three acres. In these 33 villages about 5,000 acres in over 11,700 blocks have been repartitioned into less than 1,600 blocks to the great delight of more than 1,700 owners.

In one village I visited, one man had had his small heritage of less than one acre (7 kanals) in ten different places; now it was in one, and, of course, was of far greater value to him.

We have found men with rights in several wells, and have given them all their *chahi* land around one well; we have found a man with a right in a well, but with his land so far away, he was not putting water on to it, now he has all his land within reasonable distance of one well. We have found areas so minutely sub-divided that they were not cultivated; the fields were of such small dimensions that they were not worth the trouble of ploughing; now these areas are in large blocks and are under crops. There have been many cases where individual owners had scattered plots so small that they did not cultivate them; they were either left waste or had been enclosed by neighbours; at Chomo, one man assured me that he had now half as much land as before, he had lost sight of tiny plots for years and now had recovered them in the form of a single parcel of land. In many cases, the fields were so narrow that they could not be ploughed crossways; these are now in convenient shaped blocks. From the enthusiasm of the cultivators, it is possible to understand what a great burden this fragmentation has been to them; it has restrained improvements, a man cannot use a Rajah Plough in many of these tiny fields; a man with eight acres in sixteen places cannot sink a well with advantage; but now his land is all in one spot, he is sinking a well. In Ghazipur, I saw five new wells in the ground and bricks for a sixth collected on the site; from other villages comes the tale of new wells or of a demand for takkavi to sink them. There is an actual increase of cultivation due to the recovery of the tiny plots mentioned; there is a stimulus to improvement everywhere; there is greater economy in the use of wells, as it frequently happens that a man's well will irrigate more land than he has got within reasonable distance; now his *barani* land is allotted near to his well and is coming under irrigation. There is saving in cultivation, in time and labour, saving to the womenfolk, saving in water, for it is found that more land can be irrigated with the same water when the land is in one block than when scattered. This has in some cases led men to give up *chahi* land and take *barani* near their well in exchange, or even *barani* in one block where a well can be sunk; disputes over boundaries should now decrease; rents have already risen, for tenants are quick to appreciate the advantages of the compact block. In re-aligning boundaries it has been possible to alter the village paths so that each man's land can be reached without crossing another's field. In short, we have here a measure that confers advantages to all

concerned, and injures none. In no other work that I have seen is there the spectacle of everybody pleased and no one claiming that he has suffered. This is not to say that no one complains, but the complaints are rare ; they amount merely to a grumble that while great advantage has been gained, a little re-adjustment at some one else's expense would make these advantages still greater to the grumbler ; I have not met a man who wanted the old scattered fields back again.

Here then we have a great reform that amounts almost to a rural revolution ; a reform the advantages of which are readily recognised and should be permanent ; a reform that ought to lead to great economy in the agricultural operations of these congested districts and may, if the example of other countries is any guide, result in increased production at decreased cost. It has one other merit : it is cheap. There is no object to be gained from an attempt to work out exact figures, but, so far, the actual cost is about one rupee or so per acre ; if we put it at less than one rupee four annas per acre, we shall have a margin on the right side.

There is just one other point that deserves to be emphasised : so far as we have gone, our success has been obtained in villages where there has been a good credit society for a number of years. If a co-operative credit society has worked well for ten years, then it is usually found that there will be good chance of a consolidation of holdings society. Sometimes I find that even friendly critics suggest that this work has nothing to do with co-operation ; these overlook the fact that it is the co-operative spirit, the spirit of mutual help, the spirit which seeks the good of each through the good of all, the spirit which accepts a little sacrifice for a common good, it is this spirit which makes consolidation possible. I think I am correct in saying that no consolidation has been done by the staff where there is no co-operation. The same characteristics which make for successful co-operation make also for consolidation. There must be the same subordination of factionousness, of selfishness, and of domination of the rich over the poor, of the strong over the weak. If this movement towards consolidation is to be successful, we must please the weak as well as the strong, the poor as well as the rich ; every one must have an equal voice if we are to get the consent of all. The advantages are so great and so obvious that it is easy to underestimate the intense feeling of affection of the cultivator towards his ancestral holding. We are apt to forget what the small owner has to remember. He is asked to give up all he has, everything he depends upon for his livelihood, for what may or may not be a good exchange. If we try to place ourselves in his position, we shall be able to appreciate his fear that he may be a loser by this new scheme. It is for this reason that I advocate careful progress on purely voluntary lines for another year or two before attempting any measure of legislation. We have to create a strong public opinion in favour of consolidation, before we can think of forcing the pace. We are gaining popularity rapidly ; we cannot meet the demands for the special staff, we are preparing the ground for a greater revolution. The experiment is worth your notice.

DISCUSSION ON MR. CALVERT'S PAPER.

MR. CALVERT supplemented his paper on "Consolidation of Holdings in the Punjab" by laying a large number of maps before the Conference. One* of these showing the position of a man who would not join in when redistribution was taking place created a great impression on members. He explained what progress had been made, and the difficulties the Co-operative Department had had to contend with.

MR. TREVASKIS circulated a series of maps dealing with the Enclosure Movement in England, and the similarity between these and Mr. Calvert's maps was most noticeable.

MR. GULERI read extracts from a paper he had prepared on the same subject. He pointed out that those who had been most enthusiastic in attempting to introduce some form of consolidation in India had been wholly prompted by the extraordinary success and added prosperity in European countries as a result of consolidation. But while he believed that the scheme would work with far greater success in India he felt that the law of succession in India would present insuperable difficulties. In England the law was one of primogeniture by which land was inherited only by one successor, whereas in India land was divided among so many sons of a proprietor; so much so, that even though the lands were consolidated now they would in the course of a few generations become divided into so many small holdings. He did not want to discourage the workers in this direction but only wished to point out that the results in India would not be the same as was the case in England.

MR. JEVONS complimented Mr. Calvert on such an important contribution. He referred to a more or less similar scheme attempted by Mr. Mehta in 1912 in the United Provinces and said that this was in reference to the lands under the Court of Wards where there was no confusion of ownership and where the question was only of tenancy. He then said that the scheme should be proceeded with in stages as otherwise it would become impracticable. Confidence had to be created in the people regarding the success of this scheme and when the people realised its advantages then it would be time for legislation to prevent the evil complained of by the previous speaker.

MR. MYLES asked if Mr. Calvert could inform the Conference as to what steps had been taken in France to prevent fragmentation a second time once consolidation had taken place. Up to the beginning of the war there had been much talk in France of the need for legislation to prevent fragmentation in the case of smaller holdings, and he would like to know whether such legislation had become a reality and how it was operating. He would also like to know if the writer would recommend such legislation here.

DR. HYDER said that all countries had done this work of consolidation and therefore India also should do it. As regards legislation he explained that there were diverse laws in regard to succession and that they were based on customs, etc., of a more or less religious character.

* Reproduced here.

It was therefore impossible to legislate on the matter and the only possible solution was to educate the people by propaganda and other means to establish a custom by which the land reverted to the eldest son or the younger son or to some such individual and was not divided at the death of the owner.

At this stage the conference adjourned for lunch.

THIRD DAY :—THURSDAY, JANUARY 18th, AFTERNOON SESSION.

Continuation of Discussion on Mr. Calvert's Paper.

MR. J. LEITCH WILSON said that at one time in France there was talk of bringing in legislation to ensure that if the eldest son was able and willing to take the whole land and pay pecuniary compensation to his brothers then the other sons would be compelled to accept the pecuniary compensation in lieu of their share in the land. He was not sure whether there was now a statute to prevent sub-division, and he said it would be interesting to consider whether such legislation could not be introduced in India.

MR. KALE pointed out that they were discussing the question of consolidation and they would be complicating the case if they were to consider other questions such as the law of inheritance and impartibility. He then explained that an attempt was made by Mr. Keatinge, the Director of Agriculture in Bombay, to bring in a bill on the subject, but it had to be dropped owing to strong opposition. He suggested, however, that the solution of the difficulty lay in going round the people and educating them on the advantages of consolidation. After this had been done then the question of legislation in regard to impartibility might be taken up. He pointed out that legislation must be on a voluntary basis. In conclusion he did not want to complicate the matter by considering other issues at this stage.

MR. STRICKLAND agreed that legislation should be on a voluntary basis, and said that there was a law in the Punjab by which Jagirdars could not divide their lands. He said that when they had got a co-operative staff in the Panjab which was able to bring about consolidation, it would not be wise policy to defer consolidation because thirty years hence even with consolidation people might have reverted to the same position as they were in now. It seemed to him much better to go ahead and take steps to rectify renewed sub-division when it appeared.

MR. CALVERT by way of reply said that as regards the law of succession they had worked only for twenty months which was nothing in the life of a nation. He said that they should go on with the work and make it as wide as possible and leave the solution of future difficulties to the next generation. He agreed with Professor Kale in thinking that they should not overburden this question with other considerations. He further emphasized that this was not an easy task and the co-operative staff had to work with patience.

CO-OPERATION AND THE MARKETING CONDITIONS IN RURAL AREAS.

BY T. J. KUMARASWAMI, M. R. A. S. (LOND.), RESEARCH SCHOLAR
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Any estimate of the probable effects of co-operative organisations for purchase and sale in the rural tracts must be based on an understanding of the present marketing conditions in those parts. So I shall begin with a description of the present conditions.

At present there is no organisation among the agriculturists themselves to market the farm produce or purchase their requirements, with the result that they get a very low price for what they have to sell though they have to pay dearly for their purchases. Now, middlemen, mostly money-lenders, assume the risks of distributing the surplus supplies of the villages. They are Mandy-merchants (Mandy—a place for marketing and storing commodities), owners or agents of rice mills, brokers and commission agents of the exporting firms and agencies. Immediately after the harvest the needy ryot who has to make a number of money payments takes the produce of his lands to the Mandy in the nearest town. As soon as he goes there he will find a number of people coming and asking for rates and inspecting his goods. Then the Mandy-merchant, if he has not any orders from outside merchants at higher rates, will arrange for the disposal of the commodities locally. He will get his commission from the seller as well as from the buyer. The buyer, if it is paddy, will husk and prepare it for the rice merchants who used to go to such people and gather in driblets to supply the distributing agencies; if it is ground-nut the agents of the European firms purchase it when it is brought to their godowns located in the neighbourhood of such villages. They prepare it afterwards for the market. Similar conditions are obtained in the marketing of cotton.

In all these cases a number of middlemen are engaged as brokers and commission agents to secure a good supply from the villages. If these crops are sold collectively by the villagers through a co-operative society they stand to gain at least 20 per cent. more than what they get at present. Co-operation aims at the elimination of the unnecessary middlemen and economic waste. If these crops are prepared for the market in the villages or in the neighbourhood they will provide some subsidiary occupation to our villagers not to speak of the training it may give them in business methods. Paddy can be husked, ground-nut decorticated and cotton ginned locally. This will save much in the carriage expenses. These economies will give a stimulus to the growth of capital in our villages.

Such savings will increase if similar organisations are formed for the purchase of the requirements of the villagers. Now he (the ryot) gets his cloth from the draper in the town on credit at a price which is generally 20 to 50 per cent. above that charged for others, and he has to

pay interest for that amount in kind which amounts to about 50 to 100 per cent. Sometimes these loans are renewed owing to famines or other unexpected happenings in the family of the ryot. Then the sum trebles itself in no time. The ryot purchases his other requirements as spices and articles of food, kerosene and implements at prices 10 to 20 per cent. above the rates charged for others.

In collective purchase more than in such sales the ryot stands to gain a greater amount by eliminating the unnecessary middlemen as may be seen by the abnormal prices charged for the articles he is in need of by the retailers who judiciously divide among themselves (like the middlemen in urban areas) the right of catering to such customers thus establishing monopolies of predatory rights for themselves.

In this connection, a description of the Shandies or periodical fairs will not be out of place. These fairs serve as collecting and distributing agencies for the local produce and they also cater to the villagers by selling some luxuries which are otherwise procurable only in towns. They are held at places which are at convenient distances to a group of villages and are generally well attended, the attendance being in a direct ratio to their importance. Generally they are held from 6 a.m. to 6 p.m. though half-a-day fairs in the afternoon only are not uncommon. They are held once a week and the prices in such fairs are determined solely by the intelligence and the bargaining capacity of the contracting parties. The ubiquitous middleman is omnipotent in such fairs. He will see that no bargain is concluded without him and he rules supreme in cattle fairs more than in others. Our agriculturists are like Goldsmiths "Moses at the fair" quite helpless in his hands at the cattle fairs. The importance of cattle to our agriculture can never be overestimated. Judicious buying of cattle by co-operative organisations will save a great amount to our ryots.

All such savings will increase the efficiency of our agriculturists and at the same time will give a stimulus to the growth of capital in rural areas. And such an improvement will be beneficial to the country as a whole as our main occupation is agriculture.

It is not my object to subject the middlemen to a severe censure but merely to point out the importance of co-operative organisation to market the farm produce and to supply the requirements of the villages. The average ryot is not financially strong, and individually is at a disadvantage in bargaining and in protecting himself against aggression. Hence the exploitation by the middlemen. Such a state of affairs can no longer be countenanced as it retards the best development of our country life. Unless we solve this problem we cannot improve the condition of our agriculturists. The good effects resulting from a solution of the other rural problems will also be greatly nullified if we do not find a solution to the marketing difficulties in rural parts.

Of late, something has been done in the Madras Presidency to combine the villagers to form co-operative trading societies and organisations for purchase by indent. In some *taluks* in the North Arcot

district there were sales amounting to three lakhs of rupees of articles purchased on indent and it showed a profit of Rs. 60,000, thus working up to a dividend of 20 per cent. Our former Registrar, the late Mr. F. R. Hemmingway, estimated that the members of the primary agricultural societies who were 170,000 in number could make a profit of 34 lakhs of rupees a year—calculating profits at a modest rate of 10 per cent. of the sales. Our late Registrar, Rao Bahadur A. Vedachala Ayyar, worked heart and soul for the success of such societies.

The method adopted by such societies was quite simple. On the requisition of the *panchayat*, the members of the primary societies sent an indent for their requirements. These indents were collected and a big order was sent to the best available wholesale supplier. The articles were distributed as soon as they were received for cash or on short time credit to be collected by the primary societies. Much of the success of those societies is due to the zeal and enthusiasm of the official and non-official votaries of co-operation. Similar arrangements were also made to sell the farm produce.

Such has been the success of co-operative organisations for purchase and sale in small areas. The success of such societies clearly indicates that more economies can be secured by a better organisation along those lines. First, we shall take the starting of such societies for purchase and sale.

The unit for such societies should be a village and in any case it must not exceed three villages. Else there will not be that mutual knowledge among members without which no society can be really co-operative in character.

The members must be made to understand the real necessity for the starting of such a society. Such societies must keep separate accounts and must be kept distinct from other co-operative undertakings though the personnel may be the same in the various co-operative societies of the villages. The membership must be restricted to agriculturists residing in the villages. If necessary, two separate societies may be organised, one to conduct the sales of the farm produce and the other to purchase the requirements of the villagers.

If success is to be achieved, the members must be loyal to the society and must be actuated by the spirit of co-operation—(all for each and each for all). After all it is not very difficult to secure the loyalty of the members if the management is really efficient and tactful. Nothing succeeds like success. If necessary, a paid manager may be appointed who knows his business thoroughly well.

In the trading societies referred to above no provision has been made for the godown accommodation of the articles. In the stores for distributing articles to members and in the sales societies formed for the disposal of the surplus produce of the villagers some sort of godown accommodation is necessary. It may be rented or owned. Everything depends on the magnitude and success of the business.

A share capital must be raised to provide funds for meeting such expenses. It must be greater in amount for the stores societies as they will have to pay for the purchases. If cash sales are insisted upon we need not raise much share capital as the proceeds of sales will increase the working capital. Members may also be encouraged to make deposits in such societies. The increasing economies brought about by such societies may also stimulate the growth of such deposits. We can also develop a system of co-operative exchanges by a mutual understanding between the societies for purchase and sale for persons who are members in both of these societies. The net profit must be divided *pro rata* to the contribution of the members, not to the share capital but to the sales or purchases as is common in the consumers' co-operative societies.

In the societies organised for selling the farm produce the following are the difficulties encountered :—

- (1) We have to collect, grade and sample the supplies on lines best adapted to meet the market requirements.
- (2) We have to maintain a granary or godown.
- (3) We have to make provision against loss by deterioration or damage caused by insects or other agencies.
- (4) We must avoid undue competition among ourselves.
- (5) We must find a market for the goods.

All these difficulties can be overcome by an efficient management. The agricultural department has suggested many methods by which we can provide against the loss due to insects, etc., in the granaries. The last two problems can be solved by a federation of village societies for purchase and sale and the urban stores and by a system of scientific distribution. We can get into direct touch with the wholesale agencies. If we organise ourselves properly the wholesale agencies as the big exporting firms, stores, etc., will themselves come to us. Our dealing in bulk is a distinct advantage in our favour. They are assured of the quality of our goods and getting a regular supply and in bulk which will save them much time and money. Our agricultural holdings are small and the return for the individual farmer is also small. Hence the imperative necessity for collective bargaining in marketing our farm produce.

The chief factor contributing to the success of such undertakings is business capacity. If we cannot get capable business men as honorary officers we shall appoint them as paid managers or secretaries. The wants of our agriculturists are not too many. Salt, kerosene, cloth and a few articles of food exhaust the list. Village stores will be a success unless it is mismanaged by inefficient or dishonest men. Perhaps the only difficulty will be the want of funds for the agriculturist to make cash purchases. This can to some extent be overcome by securing a short time credit accommodation within his means to the honest ryot at the primary co-operative credit societies who will guarantee or pay for his purchases at the stores,

The handloom weavers and those engaged in cottage industries may also be admitted as members in such sale and store societies.

In all such co-operative societies the members must be careful not to sully the fair name of co-operation by dealing in inferior and spurious stuffs or by bad practices as dealing out short weights, etc. If they are careful about it, their success is assured. Honesty is the best policy in such businesses.

Lastly, we may also start co-operative societies for preparing the articles to the market by providing for the husking of paddy, for the ginning and packing of cotton, for decorticating ground-nuts, for the crushing and refining of sugar-cane. Many of our rural areas producing such products are very near the ports from which they are exported. For example, in the South Arcot district noted for its ground-nuts and sugar-cane we have two outlets, namely the ports of Pondicherry and Porto Novo, very near the source of production. Such industries may be started at convenient distances to serve a number of villages and the magnitude of business warrants it every village may have one such organisation.

By propaganda work conducted by the officials and non-officials and by mutual co-operation between them we can solve the marketing problems in no time. The economies effected by solving these problems will stimulate the growth of capital in the villages which in its turn is sure to result in increased efficiency in production not to speak of its good effects from a social point of view.

DISCUSSION ON MR. KUMARASWAMI'S PAPER

MR. TREVASKIS pointed out that in the Lyallpur District of the Punjab they had co-operative commission shops which sell agricultural produce in much the same way as had been described in Mr. Kumaraswami's paper. *These shops were found to offer considerable advantages over the system of sale by "mandi." It could not be doubted that the zemindars lost a considerable amount on account of false weights when they sold their crops in the "mandis." Another great advantage of the commission system was that any agriculturist who was in urgent need of money was not obliged to sell his crop immediately at an unfavourable price but had only to bring it to the commission shop. There he could get an advance of 75 % of its value, and the crop would then be sold when a favourable opportunity offered. One difficulty that had arisen circled round the question of management, viz., whether it was better to have a businessman or a zemindar. A businessman was generally better up in accounts and understood the system better; there were often complaints, however, that he was unsympathetic towards the zemindar. The zemindar, on the other hand, though sympathetic, had not as a rule got the business acumen necessary. The difficulty had in some cases been surmounted by having one as the manager and the other as the assistant manager. These commission shops were financed by the central co-operative banks which could advance money to them without asking for security, though this would not be possible in the case of individual dealers.

MR. CALVERT explained that in the Punjab there were two or three European gentlemen with large private lands who had associated with themselves most of the cultivators around and formed a large co-operative society for purchase and sale for cultivators. He then explained that a scheme was pushed through to form a corporation of grain dealers but this failed owing to the selfishness of grain dealers who wanted to have all the profits to themselves.

MR. KUMARASWAMI by way of reply said that in a co-operative organisation a really efficient manager was necessary. In the matter of credit accommodation to be given by the central banks he said that not much will be necessary and even the little accommodation required would be only for a short time and could be easily obtained. As regards the organisation of grain dealers referred to by Mr. Calvert he had the least sympathy for such an undertaking because the merchants would harass the poor cultivators. Co-operation was essentially for poor workers to combine themselves against the predatory instincts of the middlemen and if credit accommodation were given to these middlemen then people would be far away from the real spirit of co-operation.

* See in this connection an article by Mr. Trevaskis on "Some Aspects of Agricultural Marketing as illustrated by the Lyallpur Co-operative Commission Sale Shops," in "The Agricultural Journal of India," Vol. XVIII, Part II, p. 115—Ed.

RURAL DEBT IN THE PUNJAB—A FRAGMENT.

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Previous Enquiries : (a) in the Punjab.

In the Punjab, though agriculture is still the only industry of any importance, there is almost no information available as to the extent to which the cultivator is in debt. From time to time enterprising settlement officers have attempted to collect figures for their districts, but for the most part despair of their accuracy has compelled them either to abandon the attempt or to admit that little reliance could be placed on the results. Apart from this, so far as I am aware, only the following enquiries have been made :—

- (1) In 1876 the indebtedness of 61 villages in Hoshiarpur was ascertained.
- (2) In 1878, in connection with the famine of that year, 223 family budgets were collected from different parts of the Punjab.
- (3) In 1896 Mr. S. S. Thorburn, the brilliant author of "Mussalmans and Money-lenders in the Punjab," undertook an exhaustive enquiry into the circumstances of twelve villages in the districts of Shahpur, Gujranwala and Sialkot.
- (4) Finally in 1919 and 1920, the two villages of Kabirpur and Bairampur in the Hoshiarpur District were respectively surveyed by Dr. E. D. Lucas and Mr. R. L. Bhalla.

I shall have frequent occasion to refer to the last but, so far as my present purpose is concerned, Mr. Thorburn's enquiry is the most valuable as it was devoted entirely to the question of indebtedness. It covers, however, too narrow a field for any conclusions to be based on it for the province as a whole and it is also somewhat out of date.

(b) Outside the Punjab.

Outside the Punjab there is the same dearth of exact information.

The simplest way to show this is to enumerate the areas in which enquiry has been made, and in doing so it should be remembered that these enquiries afford all the information available for nearly 300 million people. The areas, with the dates of the different enquiries, are as follows :—

- (1) 1875, twelve villages in Ahmednagar ;
 - (2) 1894, Nagpur (18,000 tenants) ;
 - (3) 1906—10, Faridpur, a district of Bengal, in which the late Major J. C. Jack, I. C. S., made an exhaustive house to house enquiry throughout the district ;
 - (4) 1913, Baroda State (a general enquiry made by the Baroda Darbar) ;
 - (5) 1917—19, Pimpal Saudagar and Jategaon Budruk, two villages in the Deccan, which were exhaustively surveyed by Dr. H. H. Mann ;
 - (6) 1918, Ajmer-Merwara (10,779
 - (7) 1919, Mysore State (24,350
 - (8) 1919, Bengal (4,000
- } members of co-operative societies).

In most of these cases there is very little information to be had about rural indebtedness beyond a few figures, some of which will be given later. Major Jack's report, however, and Dr. Mann's two studies are full of facts and very valuable of their kind, but they do not cover more than a district in one case and two villages in the other. The enquiry that is about to be described may at least claim this advantage that it is the first to embrace the best part of a province.

Origin of the Enquiry.

When I first came into contact with co-operation six years ago I was struck by the fact that, though its primary object was to reduce debt, no one knew how far or to what extent debt prevailed. About the same time, to assist village banks in making advances to their members, a register was introduced in which were recorded the assets and liabilities of each member, including his debts. It was, therefore, a comparatively simple matter to ascertain how far co-operators were in debt. This was done during the year 1918-19 in the case of 55,308 members belonging to 2,106 societies. The returns were prepared according to a prescribed form by the inspectors of the Co-operative Department, all educated men and many of them graduates. The results may, therefore, be trusted. Necessarily only co-operators were considered, and it may be objected in consequence that the returns are not representative. The reply to this is that co-operators include all sections of the agricultural community. If, however, they err at all it is not on the side of exaggeration. Subsequent official enquiry leaves no doubt as to this.

Debt in Terms of Land Revenue.

Before concluding these introductory remarks, for the dryness of which I apologise, a final point must be noted. It is not enough to know how much a man is in debt. We must also find out if we can whether he is seriously involved. The best way to do this is to work out his family budget. In a limited number of cases this has been done—there is no time to give the results to-day—but for over 50,000 people it was obviously impossible. For the mass we must content ourselves with some rough and ready standard of general resources. For landowners, and this paper deals entirely with them, much the best measure of debt is the land revenue as, broadly speaking, the amount a man pays varies with the yield of his land. Viewed as such, it is a form of income-tax, and it is, therefore, not a bad indication of his general position. Accordingly in the tables that follow not only will the amount of debt be stated but also the ratio it bears to land revenue. This will give us some idea of the pressure of debt in different tracts and allow one tract to be compared with another. If, for instance, we find that in two neighbouring districts the amount of debt per head is identical, but that in one district it is 20 times the land revenue and in the other only ten, it is a fair conclusion that the former is twice as heavily involved as the latter.

It only remains to state for the benefit of those who are not familiar with the Punjab that it is on the whole a province of peasant proprietors and that the average cultivated holding per owner does not exceed 8 or 10 acres. The small size of the holdings is indeed the dominant feature of rural economics in the Punjab.

Results of the Enquiry.

I now give the results of the enquiry for the province as a whole. They are as follows :—

No. of proprietors concerned.	Percentage free of debt.	Total debt (in lakhs).	Secured debt (in lakhs).	Average debt per indebted proprietor.	Debt's multiple of the land revenue.
43,733	17	168	67	Rs. 163	12

There are four salient points about each of which something must be said, *viz* :—

- (1) only 17 per cent. are free of debt ;
- (2) net mortgage debt is not more than 40 per cent. of the whole ;
- (3) the average debt per indebted proprietor is Rs. 163 ; and
- (4) total debt represents 12 times the land revenue paid by all concerned, whether indebted or not.

The Percentage free of Debt.

Few if any competent judges have supposed that over 80 per cent. of the proprietors of the Punjab are in debt.

Yet this is what the enquiry suggests. The fact emphasizes the truth of Sir Frederick Nicholson's dictum that "the necessary complement of the peasant proprietor is the money-lender" and it explains too why there are 40,000 money-lenders in the province. In none of the five circles into which the province has been divided are more than 25 per cent. free of debt, and in three districts of the submontane area all but 5 per cent. are involved. Even Mr. Thorburn's enquiry of 1896, which moreover was confined to specially impoverished villages, did not give quite so bad a result as this, for out of 338 owners 12 per cent. were not in debt. Is it possible that debt is even more widespread than 25 years ago ? This, however, is a question that cannot be answered here.

For the rest of India few figures are available for the purpose of comparison. I give below all that I have been able to discover—

Free of debt.

1888, the tenantry in the Agra District	22 per cent.
1894, Nagpur (18,000 tenants)	40 per cent.
1901, Baroda State	nearly 40 per cent. of all land-owners.
1907, Faridpur (Bengal)	55 per cent. of all cultivators.
1919, Mysore State (21,350 co-operators)	37 per cent.

These figures suggest that debt is more widespread in the Punjab than elsewhere. On the other hand there is the opinion of the Famine Commission of 1901 that at least four-fifths of the cultivators in the Bombay Presidency are in debt, an estimate which curiously enough tallies almost exactly with the figure for the Punjab. But whether conditions in the Punjab are better or worse than in the rest of India, it is clear that the money-lender spreads his net over the whole country and is perhaps an even more formidable problem than was supposed.

Mortgage Debt.

Net mortgage debt is only 40 per cent. of the whole and, though it varies from circle to circle, in each one it is less than half.* The interest of this lies in the fact that, as the mortgage debt of the province has recently been ascertained, it affords a basis for calculating total debt. We shall also be able to determine its fluctuations from year to year. I have dealt with the importance of this elsewhere.

Average Debt.

When it is remembered that the average cultivated holding in the Punjab does not exceed 10 acres, an average of Rs. 463 for each indebted proprietor is considerable. But a figure standing by itself is of little value. Let us compare it, therefore, with the results of the enquiries that have already been mentioned.

These can best be expressed as follows

PUNJAB.

	<i>Average debt.</i>
	Rs.
(1) 1896, 9 villages in Sialkot, Gujranwala and Shahpur. (Mr. Thorburn's enquiry).	562½
(2) 1918, 43,733 proprietors, (present enquiry).	(a) 463 } per indebted owner.
	(b) 385 per owner.

OUTSIDE THE PUNJAB.

(3) 1875, 12 villages in Ahmednagar ..	371 per occupant.
(4) 1907, Faridpur district ..	121 per indebted cultivator.
(5) 1913, Baroda State ..	450 per indebted holding.
(6) 1917, Pimpla Saudagar village (Deccan).	225 per indebted family
(7) 1918, Ajmer Merwara (10,779 co-operators).	379 } per co-operator.
(8) 1919, Bengal (4,000 co-operators)	120 }
(9) 1919, Mysore (24,350 co-operators)	273 per indebted co-operator.

*Not infrequently a man who has mortgaged part of his land will take a mortgage of part of his neighbour's land. By *net* mortgage debt, therefore, is meant the amount that remains after deducting the consideration for the latter from the consideration for the former.

No doubt figures collected in widely-scattered areas, at different times and under varying conditions can have but little comparative value; but these at least show that debt in the Punjab is not insignificant. Of all the figures given the most instructive for our purpose is the first, as it not only relates to the Punjab but is the result of exact enquiry. It is naturally higher than ours as the nine villages in question were seriously involved. It is even higher than appears as in 1896, owing to the greater value of money, a debt of Rs. 562 was a much more serious affair than it would be now. The Ajmer figure, too, is interesting as it relates to a tract not very far from the Punjab* and the results are in both cases almost identical.

Total Debt of Proprietors in the Punjab.

For the province as a whole debt is 12 times the land revenue,* which means that the total debt of the proprietors of the Punjab is about 56 crores. Actually, however, there is good reason to believe that it is more than this. The mortgage debt of the province (excluding occupancy tenants) was last year ascertained to be about $34\frac{1}{2}$ crores. As we have seen, my enquiry suggests that net mortgage debt is only 40 per cent. of the whole. If, as I think is fair, we assume that gross mortgage debt is not more than 50 per cent. of the whole, total debt will be 69 crores. To be on the safe side we may put it at 65 crores, which is about 11 times the land revenue. With this multiple as our standard we can form some idea of the pressure of debt upon the peasant proprietor of the Punjab. Broadly, the land revenue demand absorbs about one-fourth of the *net* income of the land. Accordingly, a multiple of 14 means that the average proprietor's debt is equal to $3\frac{1}{2}$ years of his net income. Viewed thus the burden can hardly be regarded as light. On the other hand, if debt and sale value are compared, the burden can hardly be regarded as heavy, for during the five years ending with 1921 land sold in the Punjab at an average price which was equivalent to 181 times the land revenue payable upon it. It is, however, fairer to express debt in terms of net income than in terms of sale value, as the latter is notoriously inflated and bears little relation to yield.

Comparison with Prussia.

At the same time it cannot be too clearly emphasized that in any Western country a debt of 65 crores or £13 millions, formidable as it is, would be considered a very small one for a province of 21 million inhabitants. A single instance will show what is meant. In 1902 the proprietors of Prussia who numbered about 600,000—in the Punjab there are well over 3 millions—were in debt to the tune of £377 millions,† and in a single year, 1913, net mortgage debt in rural areas increased by nearly £40 millions, that is to say by an amount which is not far short of the total debt of the proprietors of the Punjab. Yet before the war

*For land revenue see Land Revenue Report, 1921, Statement IV (Col. 10).

†Figures given me by Professor Max Sering (University of Berlin).

Prussia was as strong in agriculture as any country in the world. It is one of the paradoxes of the subject that debt is as often an indication of prosperity as of poverty. If anyone is interested in this aspect of the question, I venture to refer him to an article of mine in the *Indian Journal of Economics* for January 1921 entitled "Prosperity and Debt in the Punjab."

Part II.—DEBT IN FOUR SUBMONTANE DISTRICTS.

. The Causes of Debt.

Before embarking on the second part of my paper which deals with rural debt in four submontane districts, a word of explanation is necessary. As the result of the enquiry which has been briefly described I have been led to investigate the causes of debt in different parts of the Punjab, and I have come to the general conclusion that in the Punjab, and probably also in India, nearly all roads lead the cultivator into debt, or in other words that the causes of debt are innumerable. At the same time there appear to me to be four main causes which are continually forcing a man to borrow, *viz.*—

- (1) small holdings ;
- (2) the constantly recurring losses of cattle from disease and drought ;
- (3) the natural improvidence of a hot country combined with a great insecurity of crop ; and
- (4) extravagant expenditure on marriages and other domestic ceremonies.

In addition there are two causes that make borrowing easy, namely facile credit and a vicious system of money-lending. The first four explain why a man *must* borrow, the last two how he *can* borrow, and it is a combination of "must" and "can" that explains the ever-increasing debt in the Punjab.

Now it is not contended that these six causes are everywhere dominant. They vary indeed from tract to tract, and that is why it is not sufficient to study debt in one area alone. For the purpose of my own study I have divided up the province into six circles, and as six circles can obviously not be adequately discussed in a single paper, I have thought it best to give you my conclusions, such as they are, for a single circle only.

Description of the Tract.

This circle embraces the four districts of Sialkot, Gurdaspur, Hoshiarpur and Ambala which lie at the foot of the Himalayas between the Chenab and the Jamna. No less than five rivers run through it, or seven indeed if we include the Ghaggar and the Ujh. Much of the tract is riverain country, which invariably means water-logging, disease and debt. Owing to a high rainfall, which runs from 30 inches to

well over 40, famine is unknown, and the land being fertile, population is unusually dense. Holdings are correspondingly small, and as the latter are generally split up into tiny fields scattered round the village, good agriculture is at a discount. Through most of the tract the Rajput predominates, a tribe that is notorious for bad husbandry and extravagance. Nor are the other tribes seen at their best. Finally, thanks to the security of British rule and to the slack-twisted character of much of the population, the tract has long been the happy hunting ground of the money-lender. The combined effect of all these factors is almost universal debt. In three out of the four districts only five per cent. are not involved, and of these areas it might almost be said in the words of the great but fallacious French philosopher that "man was born free, but is everywhere in chains."

Results of the Enquiry.

I will not bother you with the figures for each district. Suffice it to say that returns were obtained for over 12,000 proprietors and that the following results emerge :—

- (a) only 11 per cent. are free of debt against a provincial average of 17 ;
- (b) average debt per indebted proprietor is Rs. 525 or over Rs. 60 more than the figure for the whole province ; and
- (c) total debt is 20 times the land revenue.

It is clear, therefore, that we are entering a tract that is seriously indebted. It is probably the worst in the province, a point that should be remembered in judging the results.

The Money-lender.

Many and various are the causes of debt, and most of them are to be found here in greater or lesser degree. But dominating and aggravating them all and turning them irresistibly to his advantage is the money-lender, who has four-fifths of the cultivators in fee. Formerly the ally, if not the servant of the village community, he is now too often its master. The security of British rule and a legal system, in which the spoils are ever to the astute, have given him an opportunity which he has been quick to seize. With the Pax Britannica land rose rapidly in value and the cultivator was only too ready to pledge it to smooth away the difficulties of life and to meet the extravagant demands of social custom. In this the Rajput set the standard, and it was a standard that compelled frequent recourse to the money-lender. Nothing could be more demoralising, and though little is said about this factor in the present paper—the subject is being dealt with at length elsewhere—it must be remembered that throughout he is the evil genius in the background and his system the *fons et origo mali*.

Small Holdings.

After the money-lender nothing has affected the tract more profoundly than the smallness of the average holdings. Nature is bountiful, but man is prolific. In the East every advantage of nature is

sooner or later neutralised by an increase of population. It may almost be said that the fertility of land is a measure of the fertility of woman. The pregnant truth, discovered by Malthus, that the happiness of countries depends "on the proportion which the population and the food bear to each other" has ever been ignored*. Throughout this tract the yield *per acre* is high, but the yield *per man* is low. In the Hoshiarpur tehsil there are 960 people to every square mile of cultivation. In the low-lying riverain country of the Ravi, where little effort is required to secure a harvest, the density is over 1,000. In no tehsil is the average cultivated holding more than 8 acres, and in every tehsil of Hoshiarpur it is no more than 4 or 5. Now, as Professor Carver points out, small holdings invariably mean small incomes†; and in a backward country, where expenditure is less determined by income than dictated by necessity and custom, small incomes sooner or later mean debt. Only one thing can prevent this lack of credit. In the Bengal district of Faridpur it was found that 50 per cent. of those who were classed as "indigent" had no debt at all as they were "too poor to have any credit." But in the Punjab, owing to the great rise in the value of land, every owner enjoys two or three times as much credit as he did 30 years ago. In parts of Hoshiarpur and Ambala land is four or five times as valuable as it was in the eighties. There is therefore no lack of security, and the money-lender sees to it that there is no lack of money.

Yet, it may be asked, if nature is bountiful why should a man borrow? The answer is that nature is infinitely capricious. The monsoon may fail, or, as so often happens near the hills, the rain may come at the wrong time; or a river may rise and sweep away harvest, hamlet and herd. Under such circumstances to support a family upon a few acres without getting into debt requires a level of skill, industry and thrift seldom attained in a hot country. Undoubtedly it can be done, just as a small sailing boat can weather the storms of the Atlantic. But, unless the boat is both well found and well manned, it will assuredly sink. In India the farm is too often neither the one nor the other, and nature can be almost as destructive on land as at sea. It is usually reckoned that a cycle of five years will give one good year, one bad and three that are neither good nor bad. Now it is only in the good year that the ordinary small holder gets through without a loan. In the bad he will have to borrow for everything he wants, for seed, cattle and clothes, and even for much of his food. It is then that compound interest swells the account and bondage begins. Even in the three middling years he will have to borrow now and again, perhaps to buy a bullock or marry a child. In these years, if he is careful, he will be able to pay the interest due on what he has borrowed before, but it is only in a good year that he can actually reduce his debt. Once in debt, therefore, it is almost impossible for the small holder to escape. If he were thrifty and businesslike he might succeed, but he is rarely either one or the other, and the money-lender is always there to tempt him deeper into the mire. "Holdings are so small" says a settlement officer, speaking of the Gujar Khan tehsil in the north of the Punjab

*An Essay on the Principle of Population, Book II, Chapter XIII.

†Principles of Rural Economics, p. 253.

where the average is four acres, "and the margin of safety so narrow, that any misfortune may plunge the zemindar into debt from which he can never extricate himself. A series of bad years, the death of cattle or mere carelessness may lead to debt, while in the best years the surplus produce is so small that the interest is paid with difficulty and from the principal there is no escape. . . . Indeed life is hard and bitter to the cultivator who has to depend on his few acres to support himself and his family." Writing of India generally Mr. K. L. Datta comes to much the same conclusion. "Living as he (the small holder) does near the margin of subsistence, his production is just sufficient to meet his wants when the season is favourable, while in bad years he has no alternative but to fall into the clutches of the money-lender."*

Two Concrete Examples.

Let us now take two concrete cases, the two Hoshiarpur villages surveyed by Dr. Lucas and Mr. Bhalla, to which reference has already been made.† Kabirpur is below the average and Bairampur above it. The owners in the one are a thriftless lot of Sheikhs and in the other a hard working set of Hindu Jats. In Bairampur two-thirds of the land is partially irrigated, but in Kabirpur there is hardly any irrigation at all. On the other hand Kabirpur holdings average $9\frac{1}{2}$ acres against less than 5 in Bairampur. In Kabirpur seven of the ten families of Sheikhs were found to be in debt and unable to make their budgets balance. "This," says Dr. Lucas, "is the state of affairs during normal years, when not a pice is paid back to the money-lender on account of money borrowed or its interest." In his view a small farmer can only pull through if he is not in debt.‡ Despite its greater prosperity the experience of Bairampur is not very different, for the advantages of character and nature are largely neutralised by a bigger population, which is a good example of what was said above. The family budgets show that a Jat with 14 acres cannot support a family of five (including himself) without getting into debt; and that, while in an ordinary year a Gujar with $6\frac{1}{2}$ acres and a family of four can just make both ends meet, in a bad year he cannot get on without a loan. As 55 per cent. of the owners in Bairampur possess less than 3 acres and, including the land taken on lease, 23 per cent. cultivate less than six, it is clear that holdings as small as those that prevail in this area are incompatible with any real measure of prosperity.§ To secure this, either production must be increased or population reduced.

There is no doubt that throughout these four districts—and the same of true part of the central Punjab as well—population tends to outrun subsistence. As long ago as 1879, when holdings were larger than they are now, the Deputy Commissioner of Hoshiarpur remarked that the ordinary proprietor with ten or fifteen acres lived from hand

* Enquiry into the Rise of Prices in India (1915), Vol. 1, p. 161.

† See the Economic Life of a Punjab Village (1920) by E. D. Lucas, and an Economic Survey of Bairampur (1922) by R. L. Bhalla.

‡ See pp. 64, 108, 109 and 111.

§ See pp. 26, 28, 167—72.

to mouth and was usually in debt, as his holding was barely sufficient to support a family.* It is no mere coincidence that in Zafarwal (Sialkot) holdings are at once smaller and more heavily mortgaged than in any other tehsil of the district. The two are intimately connected, and if I had time I should be able to show you that the small proprietor in the Punjab is nearly three times as heavily indebted as the larger. It is not that the small owner runs up a bigger debt—the precise contrary is the case—but that debt presses more heavily upon the small farm than upon the large. The small holder is faced with two alternatives. Either supplementary work must be found, or he must be content with the low standard of living that bondage to the money-lender entails. The bolder spirits join the army, and in Hoshiarpur, as in Italy, the more enterprising emigrate. Others set up as carters or, like the Irish reapers who flock to Scotland for the harvest, go off to the canal colonies once or twice a year to pick cotton or cut corn. Most, however, with the characteristic fatalism of the East, resign themselves to the money-lender as the line of the least resistance, and they do so the more cheerfully as it is a life of comparative ease. Dr. Lucas reckons that a three or four acre farm leaves a man with 200 idle days in the year, and he regards this enforced idleness as a great cause of the peasant proprietor's poverty.† Yet if the latter seeks work elsewhere, as often as not it will be at the expense of his land. Either he will mortgage it, and land is rarely the better for being mortgaged, or he will try and combine two occupations, in which case, as a recent writer says, his cultivation will be poor and his outturn low.‡ From every point of view, therefore, holdings as small as those described are a manifest evil.

Fragmentation.

And the worst is still to tell. Small holdings are the result of large population and of laws of inheritance which prescribe that each son shall get an equal share of his father's land. That is bad enough, but what are we to say of a custom which requires that the few acres each son receives should be split up into as many fragments as there are different soils in the village, so that all may get an equal share of every kind of land, good, bad and indifferent? Yet this custom is well-nigh universal. In Bairampur the village lands were found to be divided into 1,598 fields averaging about one-fifth of an acre each. Twenty-eight per cent. of the holdings had over 30 fields, and in three cases plots were so small—the smallest was only 0.14 of an acre—that they had been lost sight of by their owners and had passed into the hands of others. Even the wells are sub-divided and a man's share may be as minute as the odd fraction that governs exchange.§ The more fertile the land, the more it is split up, as fertility and population go together. Accordingly the denser the latter, the greater the evil, and nowhere is it worse than in the thickly populated parts of this area and the Central Punjab.

* Hoshiarpur Gazetteer, pp. 73-4.

† P. 58.

‡ Keatinge, *Agricultural Progress in Western India*, p. 60.

§ Bhalla, *op. cit.*, pp. 33-4.

In other parts of India too it is as bad, and of the Bombay Presidency we read—"there is hardly a holding that will now conform in size and shape to economic requirements."* The results of this are obvious. Land is wasted in innumerable boundaries, labour and time are lost in going from plot to plot, enterprize is paralysed and developed agriculture is out of the question. All the evils of small holdings are aggravated a hundredfold, and it may be safely said that till they are consolidated, there can be no permanent advance.

Cattle Disease.

I come now to the second of our basic causes of debt, the constantly recurring losses of cattle from disease and drought. Year in year out, there is nothing that more insistently drives the cultivator to the money-lender than the ever-present necessity of replacing his stock. Indispensable everywhere, in the East cattle have an almost religious significance. It is not for nothing that in the Bible the rainbow is represented not only as a token between God and man but also between Him and every living beast, and that many hundred years later the ancient but immoral city of Nineveh is finally spared from destruction because, *inter alia*, it contained "much cattle." For anyone who has not lived in a primitive country it is difficult to realise how much a peasant's life may depend on his cattle. Without them his fields remain unploughed, store and bin stand empty, and food and drink lose half their savour; for in a vegetarian country what can be worse than to have neither milk, butter nor ghi? Indeed it is difficult to have anything at all, as all cooking is done with cakes of manure. The very "hukka," beloved of the rustic, can hardly be smoked without the cow-dung fire that is almost universally used. It is not surprising then that India probably contains more cattle to the square mile than any other large country in the world.† Yet in a bad year drought or disease will make holocausts of thousands.

In the great famine of 1869 four districts in the south-east of the province lost over 40 per cent. of their stock or a total of over 600,000 head. Two Rajput brothers, says the official report, lost 8 bullocks, 10 milch buffaloes and 40 cows and calves. Everything died and they themselves, deprived of their only means of livelihood, were forced to sell whatever else they had to keep body and soul together.‡ Even as recently as the last two years the Sirsa Subdivision of Hissar is said to have lost 40 per cent. of its stock by sale, transfer and death. These, however, are famine conditions and, thanks to a good rainfall, serious famine has not to be reckoned with in the districts near the hills. The enemy is disease and it is almost as bad. In 1877 an epidemic carried off two-thirds of the cattle of the Ambala District, and not long ago I came across a group of

*Keatinge, *op. cit.*, p. 69; see also pp. 70-1, 195-223, and H. H. Mann, *Land and Labours in a Deccan village*, 1917, pp. 47-54.

†In 1920, India had 101·5 bovine cattle, horses, mules, donkeys and camels to the square mile, whereas the United States (excluding Alaska) had only 31·2—see article in the *Pioneer*, dated 24th June 1922.

‡Famine Report, Vol. 1, p. 12, and Vol. 4, p. 73.

villages near the Beas, the river that finally stayed Alexander, where in two years 233 co-operators had lost 1,361 head of cattle or about half their total stock. Losses on this scale cripple a man for years, for they have a way of occurring when harvests are bad and resources low. To replace them, in nine cases out of ten, the peasant has to borrow. There can be no doubt, therefore, that loss of cattle is a main cause of debt, a view moreover that was held by both Mr. Thorburn and Major Jack.

It must not be supposed, however, that cattle disease on a large scale is the peculiar misfortune of India. The fact that last year's epidemic of foot and mouth disease in England and Scotland cost the country nearly £1,000,000 is emphatic evidence to the contrary. Only two years ago in Germany I met a landowner who had lost 23 cattle in two months, but—and the point is important—they were all insured. This, rather than the evil itself, is the main difference between East and West. In the West everything, cattle, crops and buildings, can be insured and in the more advanced countries generally is, but in the East almost everything is left to fate—or magic, as the following episode shows. Two years ago an epidemic broke out in the neighbourhood of Bairampur, the Hoshiarpur village that has already been mentioned. The Veterinary Surgeon came out to help, but the villagers to a man flocked to a quack *faqir* whose "charms" made cattle "invulnerable" against disease, and they were all so much of one accord that the *faqir* was paid out of the village fund.* Similarly in the Rohtak Gazetteer we read that the favourite remedy for cattle disease is a rope strung across the entrance to the village with little tin boxes suspended on it or rolls of cloth containing charms dictated by *faqir* at a rupee apiece. All the cattle of the village are driven out under the rope in a struggling herd and water is sprinkled on the houses on either side with a switch of grass. Finally a magic circle of milk and water is drawn round the whole village, and a pot containing rice or sugar is secretly buried in the land of an adjoining village, presumably in the hope that the disease may pass off that way. Superstitions like these show how primitive agriculture still is in parts of the Punjab, and incidentally they help to explain why the cultivator is like wax in the hands of anyone so astute as the village money-lender.

The Burden of Debt.

Before concluding this very brief survey of the submontane area some estimate must be attempted of the burden of debt in each district. Fortunately the mortgage debt is known in each case.

The figures are as follows :—

	Lakhs.
Sialkot	.. 264
Hoshiarpur	.. 222
Gurdaspur	.. 215
Ambala	.. 180

* Bhalla, op. cit., p. 134.

To obtain total debt a certain percentage must be added on account of unsecured debt. My enquiry indicates that net mortgage debt in these four districts is 48 per cent. of the whole. Gross mortgage debt is probably not much more, but to be on the safe side let us assume that it is 60 per cent. Total debt, with its measure in terms of land revenue, will then be as follows :—

	Total debt in lakhs.	Debt's multiple of the land revenue.
Sialkot	.. 440	25
Hoshiarpur	.. 370	20
Gurdaspur	.. 358	19
Ambala	.. 300	20

In each district total debt is £2 millions or more, while in Sialkot it is well over £3 millions. These are formidable figures, but are they crushing? This most difficult question we must endeavour to answer. Everything depends upon resources and in this case the main resource is land. What relation then does debt bear to the land? The total debt of the four districts is 21 times the land revenue.* As land revenue represents roughly one-fourth of the net income of the land, we may assume that debt is equal to five years of the latter.

Or it may be expressed in terms of gross yield. With the help of the Agricultural Department. I have worked out the latter for two out of the four districts, thus

	Gross yield per cultivated acre.
	Rs.
Gurdaspur	.. 48
Hoshiarpur	.. 42
	—
Average	.. 45

For debt the corresponding figures are—

	Debt per cultivated acre.
	Rs.
Gurdaspur	.. 49
Hoshiarpur	.. 64
	—
Average	.. 56

As these two districts are less heavily indebted than Sialkot and not more so than Ambala, it may be generally stated that debt in this area certainly exceeds the value of a year's produce.

One more method may be applied. Elsewhere I have worked out the average income of 193 proprietors living in ten villages of Hoshiarpur and Gurdaspur at Rs. 124 a head or Rs. 558 a family. For our present purpose, however, something substantial must be deducted, as their holdings are nearly twice as large as the average for the whole tract. Bearing this in mind I think an average owner's income may be put at Rs. 360 a family or Rs. 80 a head. Now the present enquiry shows that,

*My own enquiry gives a multiple of 20.

excluding those who are not in debt, sub-montane debt averages Rs. 525 per co-operator peasant proprietor. We may therefore conclude that it is roughly equivalent to 18 months' gross income of those who are in debit. In case this is considered excessive, it may be mentioned that in 1878 it was calculated that 62 per cent. of the owners of the Punjab were in debt to the extent of two years' gross income and that for 70 per cent. in Hoshiarpur it was thought to be even higher, in fact twice as high as the present estimate.*

To sum up, the debt of owners in these four districts may be broadly stated in three different ways, *viz.*, as

- (a) equal to five years' net income of the land,
- (b) exceeding the value of a year's total produce, and
- (c) roughly equivalent to 18 months' gross income of those who are in debt.

In stating these conclusions no claim of course is made to exactitude, but in their favour it may be urged that, though derived from independent sources, they are not I think mutually inconsistent. Thus (a) and (b) read together suggest that net income is about 15 or 20 per cent. of gross yield which is probably not far from the mark; and, if there is a difference between (b) and (c), it was to be expected, as owners do not get the whole produce and those who are not in debt are excluded from (c). Moreover (b) is corroborated by an acknowledged authority. Mr. Calvert estimates that land revenue in the Punjab is equal to about 5 per cent. of a year's gross produce.† If debt somewhat exceeds the latter, it should be somewhere between 20 and 25 times the former. Actually the multiple is 21. Altogether it is difficult to resist the impression that in this area at least debt is a heavy burden. The impression is strengthened if we compare the tract with the moderately prosperous district of Faridkot in Bengal. Twelve years ago total rural debt in the latter was found to be not more than one-fifth of total income, and only 5 per cent. of the cultivators were in debt beyond half their income.‡

Debt in relation to the value of Land.

There is one way of stating debt which reduces it to comparatively modest proportions, and that is to express it in terms of the value of land. In the two years, 1920-21, land in our four districts has sold at an average price of Rs. 289 an acre, whereas the corresponding figure for debt is only Rs. 56. For the debtor however, this is a dangerous way of stating the case, for it obscures the fact that debt should be repaid out of income and not out of capital. As we have seen, measured in terms of income, debt is unquestionably high. That in relation to capital it should be comparatively low is due to the enormous rise in the value of land that has taken place in the last 20 years. This is no doubt a sign of prosperity and to the man who sells an obvious advantage. But, as I have endeavoured to show in my article referred to above, prosperity has its shadow, for as land prices rise, debt increases. A man who

* Punjab Famine Report, 1878-9.

† The Wealth and Welfare of the Punjab (1922).

‡ The Economic Life of a Bengal District (1916), pp. 72 and 198.

20 years ago could raise only Rs. 100 on his land can now borrow thrice that amount and he frequently does so. This would matter little if income kept pace with debt, but for the small holder it becomes more and more difficult to repay one out of the other. In many cases his only way is to sell part of his land, but no true Punjabi sells unless he must. The alternative is bondage and in bondage as often as not he remains.

And here this paper must end, and in conclusion I would ask you to remember that it is only a fragment of a more detailed study upon which I am at present engaged, and that much is unavoidably omitted which is necessary to a proper understanding of the subject.

DISCUSSION ON MR. DARLING'S PAPER.

MR. DARLING briefly reviewed his paper and pointed out the extreme complexity of the subject and the difficulty of putting one's finger upon the causes of debt. Even so the subject was one of such importance that he considered that enquiries made in the proper spirit would yield most fruitful results. As illustrating the complexity of the subject he showed that particular castes in a certain locality would be free from debt whereas the same castes in another locality were over-burdened with debt. He also pointed out that in districts where economic conditions were prosperous, *e. g.*, Amritsar and Ferozepore, indebtedness prevailed to a large extent. Though a great deal was said about the malpractices of the money-lenders, he personally felt that it was the system that was at fault. He explained that the great indebtedness of the Indian agriculturist was due to his borrowing money for unproductive purposes. Another bad feature was the high rate of interest. He then referred to the various causes of debt such as marriage, domestic expenses, extravagance and litigation. In conclusion he said that it was throughout a gloomy subject, and in his opinion the only effective remedy was co-operation.

LALA SHIV DAYAL complimented the author of the above paper and asked to be informed as to the effect of the Land Alienation Act upon agricultural indebtedness. In regard to co-operative credit societies as a remedy for indebtedness he was surprised to see that the spread of co-operation had been accompanied by an increase in agricultural indebtedness. As to the causes of indebtedness he said he was in entire agreement with the paper.

MR. CALVERT said that through co-operation eight lakhs of old debt had been repaid during the last five years. He then gave statistics to show how much co-operative societies had done towards the reduction of debt, and also explained that the increase of debt referred to by Mr. Darling was for the major part confined to those who were not members of co-operative societies. As regards agricultural money-lenders he explained that legislation might be necessary in order that the agriculturists may not indulge in money-lending or that at least some stigma should be attached to agricultural money-lending as was the case in England. With regard to the Land Alienation Act he said that though it may seem desirable to sell a portion of the land to discharge debts it was not advisable. It was rather a thorny question and it would be a surprise to many to learn that the Hindus of the Punjab were mostly cultivators and they strongly favoured the Land Alienation Act.

DR. HYDER said that there was no increase in the agriculturist money-lenders as was generally supposed. He agreed with Mr. Darling in saying that marriages accounted for a large portion of indebtedness and suggested that it would be better for the parties entering into matrimonial relations to make economic enquiries about one another just as they made enquiries into their family history.

MR. SODHBANS said that there was no doubt that a class of agricultural money-lenders had sprung up on account of the Land Alienation Act. The agriculturist somehow or other managed to get money from the rich money-lenders and advanced it to small agriculturists. Another feature was that the *banias* or shopkeepers also made advances to small agriculturists at a high rate of interest because they knew that they could get their money back in the shape of produce. He then said that even in localities where co-operative societies existed people borrowed money from the money-lenders to pay the loans borrowed from co-operative societies, and they again borrowed from co-operative societies to repay the money-lenders.

MR. ANTIA pointed out the necessity of a Money Lenders' Act similar to the one in England. In addition to the money-lender being registered there should be a provision fixing the maximum rate of interest chargeable and the manner in which the interest should be assessed. As regards the cause of agricultural indebtedness in India he did not believe that marriages, want of thrift, spending money for domestic purposes and similar causes could be regarded as basic causes. The most fundamental cause he said was the poverty of the ryot and his poverty was increased by recurring famines. The remedy did not therefore lie so much with co-operation. What should be done was to enable the ryot to get a fair price for his produce. Another difficulty was that the ryot was unduly taxed as regards the articles he had to buy. The remedy he suggested was in the starting of purchase and sale societies which would do away with the middlemen. Another remedy was to find some occupation for the agriculturist during his spare time.

MR. CHAMAN LAL KAPUR said that he did not see how prosperity and indebtedness could go hand in hand. He wanted to know how the causes of indebtedness given in the paper should be particularly operative in places which were very prosperous.

REV. E. D. LUCAS spoke of the relative prosperity of the Chamar classes and attributed this to the fact that they had no security to give and so could not get into debt; they also had to spend very little on domestic occasions. Besides the Chamar can turn to any kind of work and had no scruples about doing any type of work and so he was kept employed all the year round.

MR. DARLING by way of reply said that the points raised in the discussion were so wide and varied that it was not possible to answer them all within the limited time at his disposal. In regard to the fact that prosperity and indebtedness go hand in hand, he did not mean that they occurred together, but what he meant was that when there was prosperity the people began to play "ducks and drakes" with it. As regards the opinion expressed that poverty was the cause of debt he did not agree, as when there was no security to give then it was not possible to get loans. As regards agricultural money-lenders he said they certainly were on the increase, and he actually knew of a case where a man who had gathered a few hundred rupees in the course of twenty years in the Army became owner of thousands of rupees in the course of four or five years by money-lending.

THE PROBLEM OF CATTLE IMPROVEMENT IN INDIA.

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(In the absence of the Author, this paper was taken as read.)

An important question which has for some time been exercising the minds of our public men is how to improve the cattle of India. It is felt that such improvement is urgent both in quantity and in quality. Usually the emphasis is given on quantity but, as will be seen below, the need is more for improvement in quality than in quantity. Only in a few places in India, for example, in Sindh and some parts of Madras is the quality of stud bulls at all satisfactory. At present, in some Government dairies, the problem of solution is being attempted by importing stud bulls of superior quality and utilising such bulls of India wherever they are of the desirable quality. Such experiments have been universally successful although they have hitherto been too limited for a vast country like India. The quality of milch cattle also requires to be improved in India. At present the yield of a full grown cow in India is rarely more than six seers (about 12 lbs.) per diem during the period of lactation. In this direction also successful experiments have been made. At Bangalore and Mhow, for example, a full grown cow has been made to yield more than sixteen seers per diem. Thus it seems to have been proved that it is not difficult to improve the quality of our cattle, both draught and milch, when proper efforts are directed in that behalf. The problem is how to make such improvements widespread in India. The solution of this problem again depends upon the problem of how to make the results of such improvements available to the poor masses of the country.

In connection with this question of increase and improvement of our cattle, two measures are usually advocated. One is the stoppage of slaughter of cattle, and the other is that of their export. The arguments advanced for stopping the slaughter are mainly of three kinds, *viz.*, (1) religious and humanitarian, (2) medical, and (3) economic. (1) I shall not deal with the religious aspect of the question because I feel that I am not competent to judge whether or not it is a sinful act to eat meat and slaughter cattle for that purpose. But it should be remembered that the use of meat diet is very restricted in India. The high caste people among the Hindus do not eat meat, and the lower caste Hindus and the Mussalmans, who have no objection, cannot afford to eat meat as frequently as people of western countries do. Yet the number in the aggregate is very large for the whole of India. Sometimes humanitarian motives are advanced against slaughter of animals, but these, however powerful in the breasts of some noble souls, cannot justify a compulsory measure depriving a large number of human beings from having what food they desire to have. This is a matter entirely for propaganda and educating public opinion. The movement of *gow-shala* (cow preservation society) is in this direction. One can only

hope that the same humane sentiments will be extended also to other animals besides the sacred cow.

(2). On medical grounds it is urged that, for people living in a tropical country like India, meat diet is not suitable. This, however, is a point on which medical authorities must agree before economists or other laymen should dogmatise. And when they agree there will be no need of proscribing slaughter of cattle because people will themselves give up the harmful diet. Apparently such authorities are not of one opinion yet. Sometimes authorities are quoted, who condemn the excessive use of meat in western countries. The opinion of such authorities must be cautiously applied in the case of India. What they usually condemn is not the use of meat as a dietary but its excessive use. Excess of most things is bad even when they are vitally necessary for life. In any case it seems that medical authorities will take long to agree on such a question inasmuch as the food requirements of the human body have not yet passed the stage of investigation. The elusive vitamins, for example, one class of which is derived from meat diet, must yield up their secrets before medical authorities can agree finally on this important question. Moreover, if we are to judge of results from experience India is the only important country in the world, an appreciable portion of whose population are averse to meat eating; this aversion originally arose out of religious scruples and is of late being justified by arguments based on medical grounds. Thus neither medical grounds nor experience will justify a person to stop slaughter of cattle for purposes of providing food. Further, if, on medical grounds, meat diet is to be condemned in India, such persons who desire it should condemn and abolish first the consumption of other articles, the effect of which on human body is much worse than meat, *e. g.*, alcohol, opium, tobacco, etc. It is only during the last two years or so that, as a result of the new political movement, a few such articles are being condemned on a wide scale.

(3). The third argument against slaughter is economic. It is said that cattle should not be slaughtered because India has not had enough of cattle to spare. The rest of this paper will deal with this economic argument. But here it need only be pointed out that the aid of economics is usually invoked to cover religious scruples inasmuch as little objection is raised against the slaughter of buffaloes or goats, the milk of which is widely consumed in India. Moreover, the buffaloes supply richer milk than that of cow, the quantity of which is at least proportionately equal to that of cows when the cost of maintenance is taken into consideration. Further, as draught animals buffaloes are as frequently used as bullocks, and can do more arduous work than the latter.

As to the stoppage of export of cattle, the only economic argument advanced is the short-sighted one of present shortage in cattle for the purpose of internal use in India. It is said that, at present, the number is not enough even for India. We should only export the surplus if there be any. As there is no surplus now, we should not allow any export. It is evident that the amount of surplus is a matter which is vitally

connected with effective demand for that article within the country. Ordinarily, the need of a community or country cannot be ascertained by considering the quantity of the commodity only, but also its demand price. This is affected by the use of the commodity as also by the relative position of demand and supply prices. The fact that a substantial quantity of a commodity is exported is enough in itself to show that the demand price in India plus the cost of transport, etc., is lower than the demand price abroad. This roughly proves that the use of such commodity within the country is not very great or that the consumers are so poor that, to them, the value of money is very high. I believe that both these operate in the case of cattle in India, the latter perhaps with greater force than the former. It should be noted that the export of Indian cattle is small. From the point of view of supply, we should take into account the cattle breeder in relation to the demand for cattle. Thus a study of the side of demand is essential to a proper appreciation of the problem of cattle supply in India.

The demand for cattle resolves itself into several demands. (1) *The services of draught cattle and stud bulls.*—In India not only are draught cattle used universally for purposes of agriculture which directly engages more than seventy per cent. of the population, but they are used for purposes of conveyance throughout the country. The rural population consisting of about ninety per cent. of the population depend, to a large extent, on draught-cattle for conveyance within the country. By far the largest volume of internal trade moves by this primitive method of conveyance, and, except in a few localities, especially near the towns, the same is the case with conveyance of human beings. (2) *Milk required by the country.*—The country depends wholly on the milk supply of its own milch cattle. In some parts as in Bengal this is mainly from cows, but in greater parts of India, cows and buffaloes are equally used for this purpose. They supply the whole country with milk and all its products such as butter, ghi, curd, *chhana*, etc. To a limited extent, the milk of goats also is used, especially for children. (3) *Hides.*—India holds a partial monopoly in supplying the world's skins, and its supply of hides is also very large. The demand for these is both internal and external. (4) *Meat consumed by India.*—The demand for this, as has been pointed out above, is limited to certain classes, and even among them, limited by their means. But, in the aggregate, this demand is very large. Among ordinary people, the demand is usually for meat of goats and sheep. But among the Mussalmans, who form about seven crores in number, and the Europeans including the British troops in India, there is a great demand for beef as well. Beef is also much cheaper than mutton. (5). *Dung* is widely used as fuel, and, to a more limited extent, as manure. Its use in the latter capacity needs wide extension which, however, is a question wholly of cheap fuel for the rural population.

Now it is evident that the supply to meet the demands for (1) (2), and (5) above is joint supply. The cost of keeping up cattle must be covered by the demand for their services, milk, and dung. As the price of dung is very low, the price of the other two must necessarily

be comparatively high. If there be any deterioration in quality, this latter will rise higher in comparison with the cost of maintaining cattle. The same result will accrue if the cost goes up without a corresponding increase in the price or improvement in quality of cattle fetching better prices.

Secondly, the supply of (3) hides and (4) meat would normally be joint supply. But in India, owing to the restricted use of meat, a large proportion of the total supply of hides is independent of the supply of meat, and is obtained from carcasses of dead animals. If the improvement of hides be desired, better quality of hides must be obtained from healthy and youthful animals. The price of such high class hides is much higher in the market both in and out of India than hides of worse quality. The world's supply of hides is limited, and the demand for leather goods is increasing much faster than the increase in the sources of supply. Even in India where the use of leather goods is not wide, the demand is increasing. It is, therefore, apparent that a progressively better market is opening up for hides. The profit out of this market is however limited by the demand for meat inasmuch as the cost of maintaining cattle for this purpose must be realised from the services and dung of such cattle during their life time which will be short, the price of hides, and the price of meat. In India at present little use is made of meat to supply the external markets as is done, for example, in Australia. Any such opening up of new markets for Indian meat is bound to make cattle breeding for purposes of supplying meat and hides highly profitable.

Thirdly, it must be realised that the supply of the services of draught cattle or milch cattle and their dung on the one hand and of meat and hides on the other is alternative supply so far as hides are not obtained from carcasses. Even in the latter case, although it is beyond human control, the source of supply of one is the negation of the source of supply of the other. In such cases the purpose of the cattle breeder will be regulated by the price of high class meat and hides on the one hand and the price of high class draught cattle or milch cattle and their dung on the other. This question is very important for the future of India. Cattle breeding needs to be developed on a scientific basis, which must be so developed by special encouragement for the benefit of the rural population, and, with regard to milk and meat supply, for that of the town population as well.

Now it is apparent that the growth of an industry is best facilitated by securing the widest and the best market for its output. By limiting the market, the price must fall and therefore discourage the industry. If slaughter of sheep were prohibited in Australia or export of cattle from Canada, the industry of stock raising will be destroyed in those countries. This explains the great discontent in Canada against the policy of the United Kingdom to restrict its import of cattle. Indeed, every country in the world attempts to develop new markets for its produce. In India, however, a large body of people seem to advocate the contrary method. By stopping either export or slaughter of cattle the alternative source of demand will almost be destroyed. Will this

improve the market for cattle breeders? If not, will this develop the industry? It is often argued that the free export and slaughter have not improved the quantity or quality of Indian cattle. Assuming that it is so, will such restriction do so or will it lead to greater deterioration of our stock? No article, which is not perennial and needs reproduction can improve with a more restricted market, and the position of cattle in this respect is exactly that of any other article which has to be produced for satisfying human wants. The consumer is rarely benefitted by hitting the producer. The latter is immediately affected, but, in the long run, the former is no less affected through adjustment of supply to the new conditions of the market.

In the case of cattle breeding, there are certain special considerations which add to the force of the foregoing arguments. To improve the quality of cattle in India it is necessary to select stud bulls and even cows of a superior quality. This means importation from outside and selection within the country. Also to increase the number it is necessary to work on a large scale. Now costly experiments with imported or specially selected bulls and cows require large capital so that the cost of failure of an experiment or death of a costly bull may not mean the death of the industry itself. Thus production on a large scale, apart from its inherent advantages, is a necessity for stock raising in India. Of course, there is a limit to the growth in the size of this industry as there is in the case of most industries. In cattle breeding the need of special attention to individual units, of cleanliness, and various other factors fixes a limit beyond which an ordinary farm cannot grow. But this limit yet leaves a very wide scope for such industries to develop in India since their present size and organisation are almost insignificant. The nearer is the size of a farm to this limit, the greater will be the economy and efficiency of its working and the less will be its chances of failure through inability to work with costly bulls and cows or other costly implements. Also there is less certainty in cattle breeding than in most other industries inasmuch as it deals with a living factor over which man has only limited control. Allowance must, therefore, be made not only for unequal output fetching different prices for the same cost, but also for death by, say, epidemic or other causes. Thus the risk is greater than in ordinary industries. All these make the industry a special one which can succeed only with comparatively high profit per unit of output. Therefore, the price must be higher in proportion to the cost of production than in ordinary industries. Further, however much man may try, standardisation cannot be carried to the same length in this industry as in others. Thus, the cattle breeder must work on a large scale, must have a comparatively high price, and must cover his risk of loss through greater uncertainty.

At the same time competitive production requires to be assured in the interests of the consumers and, ultimately, in the interests of the industry itself. Thus only can there be a rapid increase in the number and quality of the cattle bred in the farms, and thus only can the price of cattle be kept down as low as possible. In the beginning the Indian market is not likely to offer as good chances as it would later on. The

reason is the poverty of the people who would not venture easily to work with better cattle before their increased value is fully brought home to them. This is a matter of time. Thus, cattle breeding in India cannot develop without a good market from the beginning, and Indian market in the beginning cannot be so very good owing to its shyness towards innovations and its poverty. Even looking to the distant future the widest market is the best stimulus to cattle breeders. Even if the export be not substantial, the fact of its being open and of the possibility of its development is sufficient to exercise a healthy influence on the industry itself. Therefore, any limitation of the market has its dangers whether it is by preventing the slaughter of cattle and thereby choking the demand along a particular line or whether it is by prohibiting export and thereby cutting off the external market. The fullest advantage both of the producers and of the consumers can be obtained only by keeping the market open and allowing free play to the forces of competition in the alternative forms of demand, *viz.*, draught and milch cattle and their dung against meat and hides.

Coming now to look into the facts with regard to cattle in India we find that the number of cattle is not so deplorable as it is usually assumed to be, although the situation is far from satisfactory. From Table I which gives the figures for British India and the United Kingdom it will be seen that the number of agricultural draught animals and cattle

Table I.

1919.	Population (millions).		Agricultural animals and cattle (millions).			Agricultural animals and cattle per cent. of		Agricultural draught animals per cent. of agricultural population.		Milch cattle per cent. of total population.		Total cultivated area in millions of acres.		Number of draught animals per 100 acres of cultivated area.	
	Total.	Agricultural.	Draught animals.	Milch cattle.	Total †	Total population.	Agricultural population.	Agricultural draught animals per cent. of agricultural population.	Milch cattle per cent. of total population.	Total cultivated area in millions of acres.					
British India ...	247	178	55	51	149	60	80	30	21	222.8				25	
United Kingdom...	47	2.8	*2	†8	14.5	31	518	71	16	20.7				9	

* Horses used in agriculture. | † Calculated. ‡ Including young stock.

including young stock is 31 per 100 persons in the United Kingdom and 60 in British India. This is usually the comparison which is shewn in some publications aiming at proving India's favourable position. But apparently this is very misleading when we remember that such animals, especially the draught animals are almost wholly used for agricultural purposes in the United Kingdom, but in India they are widely used for purposes of transport, and that the proportion of the agricultural to total population is 72 per cent. in India and 6 in the United Kingdom. Thus, the proportion of agricultural animals and cattle to the total agricultural population

is 80 per cent. in India and 520 in the United Kingdom, or six and half times that of India. Similarly, if we take draught animals the corresponding figures are 30 for India and 71 for the United Kingdom. Here the position of India is much worse than is revealed by the figures, for the use of draught animals for ordinary conveyance is much more extensive in India than in the United Kingdom. In India this is practically the only means of conveyance in rural areas. In the United Kingdom this is so to a much less extent, other means of transportation having been so well developed. On the other hand it must be said that the use of cattle for meat is proportionately much greater in the United Kingdom than in India. However, this affects little the position of draught animals in the United Kingdom, which are horses and little used as meat. As against the use of cattle for meat in the United Kingdom, it should be remembered that the United Kingdom does not depend for its meat supply on home cattle only. There is a large import of meat, especially from Australia. The total import is about £175 millions or £4 per head of the total population per annum. The Indian import is almost insignificant and is consumed mainly by the resident European population. The Indian import of canned and bottled provisions—which include other provisions than meat—is only £40,000.

Again, the percentage of milch cattle to the total population is 21 in British India and 16 in the United Kingdom. The position of India seems to be better. But it is to be noted that the yield of milk per cow in India is less than one-third of that in the United Kingdom, also the period of lactation is less in India, just as the dry period is longer; as against this the cost of maintenance is also less in India. Besides, there is a large import of milk and its products or substitutes into the United Kingdom from Canada, Denmark, Switzerland, Norway and Holland. The total import of butter, cheese, lard, margarine, and condensed milk is £68 millions per annum or about £2½ per head of the total population per annum. The Indian import is only £19,000, consumed mostly by a few rich people.

The percentage proportion of the number of draught animals used in agriculture to the total cultivated area in acres is 25 in British India and 9 in the United Kingdom. The position of India in this respect is much better than in any of the above comparisons, although it is not so good as the figures would seem to indicate. Because, in the United Kingdom, horses are used in agriculture, which are better suited for, and can do quicker and better work than bullocks in agriculture. Also, up-to-date implements and machinery are used in the United Kingdom, while India works with an age-old primitive system. Yet it should be said that the position of India in respect of its number of draught animals available for agriculture is better than what is usually represented, even when we make proper allowance for the wider use of them in ordinary conveyance than in the United Kingdom. In this connection Table II showing the numbers of persons, cattle, and sheep per one hundred acres of total area will be of interest; this compares British India with some of the European countries only. In the number of

Table II.

Per one hundred acres of total area.

Countries.		Persons.	Cattle.	Sheep.
British India	..	33	20	7·5†
Austria*	..	39	12·4	3·3
Belgium	..	104	25	—
Denmark	..	28·5	26	5·4
England	..	105	16·3	42·7
France	..	30	9·6	9·5
Germany*	..	49	16·3	4
Holland	..	75	26	10·5
Hungary*	..	26	7·7	8
Ireland	..	21·6	24	17·7
Italy	..	49	9	16
Scotland	..	25	6·4	37
Switzerland	..	38	14·6	1·6
Wales	..	43	16·5	78

* Pre-war figures.

† Including goats.

cattle India's position is fifth, while in density of population it is very much less. This makes the position of India comparatively better, as also the fact that only one-third of the total area of India is under actual cultivation ; the proportion is very much higher in most of the countries mentioned in the above table. As against these we should set the fact that the proportion of population dependent on agriculture differs considerably, being about three-fourths of the total in the case of India.

If we take the case of India alone and look to its position during the last twenty years or so, we find that the picture is certainly not so dark as it is sometimes depicted. Usually it is said that export of cattle should be stopped to retain sufficient cattle for home use. But the cry is born of ignorance of facts. The normal export of cattle from India is less than 2 per 10,000 heads of cattle, that is, 0·02 per cent. It may be said that, although the number is small, yet some of the best cattle are thus exported. If it be so, it should be considered whether such cattle would be raised at all if their export were stopped. The chance of their use within the country will not be increased by stopping their export, thereby stopping their raising, but by popularising them by experimental use in India and proving that their extended use will be economic in the long run. The case of sheep and goats is similar, although their export is more extensive than that of cattle. The normal export is 34 per 10,000 heads, that is, 0·34 per cent. Certainly the amount is not such as to create alarm even if stoppage of export were an effective remedy. In this connection it will be interesting to compare the export of cattle from India with that from Ireland whose position in this respect is very much allied to that of India. Table III shows pre-war figures which

Table III.

	1911.	Total cattle. (000).	Number exported (000).	Percentage of export to total.
British India	143,200	32	0.02
Ireland	5,000	945	19.0

N.B.—The post-war cattle export of India has considerably diminished.

have been taken to avoid the effects of Irish political complications of recent years. In 1914 India exported 0.02 per cent. of its total cattle, whereas Ireland exported 19 per cent.

Nor has the increase in the number of cattle in India been very unsatisfactory. I do not mean to say that the total number is adequate, but the increase is assuring as will be seen from Table IV. The increase in

Table IV.

In millions.	1900.	1910.	1920.	Percentage 1910 on 1900.	Increase of 1920 on 1910.
Total population ..	232	244	247	5	1
Agricultural population ..	151	169	178	12	5
Total livestock ..	137	174	209	27	20
Bovine (including buffaloes)	87	119	149	37	25
Ovine (sheep and goats) ..	47	52	56	11	7

total population from 1900 to 1910 and from 1910 to 1920 has been 5 and 1 per cent. respectively. The corresponding figures of increase in agricultural population is 12 and 5. At the same time the increase in total livestock has been 27 and 20 per cent., in cattle it has been 37 and 25 per cent., and in sheep and goats, 11 and 7 per cent. Therefore, the increase in cattle is much greater than the increase in agricultural population, and very much more than that in the total population. As the number of cattle or draught animals per head of population is less than one and as the proportion of draught animals to total cattle remains practically the same, a more rapid increase in cattle than in agricultural population means a proportionately greater increase in the number of cattle per head of agricultural population. Thus, India is gaining and not, as it is often stated, losing ground in respect of its supply of cattle or draught animals. Not that the conditions as they exist are satisfactory but that the movement is in the right direction, as it is not in so many other directions, and requires to be accelerated. Any attempt to lower prices by reducing the market by prohibiting either export or slaughter is almost sure to retard this progress. Means should be devised to encourage immediately and remotely the industry of stock raising in India.

At the same time provision should be made for keeping up the improved quality of cattle when these have spread widely in India as also for improving the existing stock within the country. For

this purpose, pasture lands should be provided, and proper care taken to develop such lands. The present tendency is unfortunately against this. Common pasture lands in and near villages are being steadily and rapidly converted into cultivated lands. This short-sighted policy, pursued practically throughout India, has its inevitable reaction on the quality of cattle as also ultimately on their number. It will be seen from Table V that, in ten years, the increase in the net cropped

Table V.

Complete figures are available only since 1907-08.

	In thousands of acres.		
	1908-09.	1913-14.	1917-18.*
Area under forest ..	82,489	82,623	86,925
Area not available for cultivation ..	157,639	147,169	142,783
Cultivable waste other than fallow ..	113,066	115,587	111,485
Fallow land ..	5,153	52,620	48,466
Net area cropped ..	218,040	219,192	227,848

area is less than 5 per cent. But the area not available for cultivation and culturable waste other than fallow has decreased. The latter is rather uncertain in its movements, and its decrease is also small. The former has decreased by about 10 per cent. (about 15 million acres). This area should usually increase with the growth of population and the need of habitable accommodation. The increase in the net cropped area (about 10 millions) is not explained by the decrease in fallow land (1·7 millions) and in culturable waste other than fallow (1·5 millions). At the same time the area under forest has increased (4·5 millions). During the same period the total area by professional survey decreased by about three million acres. Thus, some of the area not available for cultivation has been converted into cultivated area and forest. The portion of the former, which can be conveniently transferred in that way, is the pasture lands which are more fertile than other parts of it, and therefore can be converted either for cultivation or forestry. This confirms the impression of those who have travelled widely in villages, and seen the complete disappearance in some and great reduction in most localities, of the common pasture lands for the cattle of rural India.

As against this it must be noted that there has been a substantial increase in the quantity of fodder crops. From Table VI it will be seen

Table VI.

	In thousands of acres.		
	1907-08.	1913-14.	1917-18.
Lands growing fodder crops in India..	4,908	5,910	8,194

* 1917-18 is taken because 1918-19 was a famine year, and 1919-20 and 1920-21 were also abnormal.

that more cultivated lands are producing fodder crops, the area having increased by 67 per cent. during the ten years for which complete figures are available. Of course, fodder is obtained from various other sources, for example, gardens and orchards, fallow land, by-products of substantial crops, etc. Yet the need for pasture lands is not less for the healthy growth of cattle, and measures should be systematically taken to provide for such lands where they do not exist and to increase them where they are insufficient, because the health of cattle will improve by open air grazing and by fresh food on the pasture lands as also by the regular exercise which they will receive in grazing on such lands.

To conclude then, it appears that India should give attention to the improvement of the quality of its cattle first and to the increase of their number next. To achieve both it is vital that not only the market, home and foreign, for services, meat, and hides should be kept open, but that it should be extended by all means in every direction in order to encourage rapid development of the industry of stock raising. By this means alone can the quantity of cattle be increased, their quality improved, and their prices kept low. In order to keep up the quality when improved cattle will be used in India, as also to support a larger number, pasture lands should be provided in all convenient localities, and fodder crops raised only as a competitive crop. If the value of India's cattle increase, higher prices will be paid for fodder, and it will be raised in competition with other crops. The value of cattle can be increased not only by improving the quality but also by finding new use for them. In this respect the use of dung as an excellent manure needs to be made widely known; but this is more or less a question of providing cheap fuel to India's rural population. Finally, the situation, especially as to the number of cattle and their increase, is not desperate as some people imagine. The progress is going on in the right direction. What is necessary is to accelerate the pace of progress, and organise the industry of stock raising on purely business principles. In this attempt, the Government of the country will have to play an important, perhaps a leading part, although not in the direction which the advocates of prohibiting slaughter and export recommend.

DISCUSSION ON MR. PRAPHULLACHANDRA BASU'S PAPER.

MR. CALVERT said he desired to compliment the writer on the way in which he had handled a difficult subject, and said that he agreed with most that the paper contained. The one thing they must realise was that there were too many cattle in India. In any country the tendency was for the number of cattle to increase up to the limits of the food supply and the one method of improvement was to eliminate the surplus cattle. Otherwise they were sure to deteriorate in quality through want of sufficient food to supply them all. He referred to the part played by religion in the matter of the elimination of cattle in India, and said that in this respect there must be a change of sentiment if they wanted to improve the breed. He next objected to the system of the common grazing grounds. This, he said, led to the mixture of good cattle with the bad and led to a deterioration of the general breed. The use of private grazing grounds is essential. In conclusion he said that so far as cattle were concerned the great difference between India and Europe was that in the latter they venerated the cow as a species whereas in the former people venerated the cow as an individual. He pointed out that in places where Mohammadans preponderated the cattle were generally of a good breed because the useless and surplus cattle were eliminated and there was sufficient pasture for the rest.

4-15 P.M.—Members attended an “At Home” given by Sir John and Lady Maynard at their residence in Lawrence Road.

FOURTH DAY :—FRIDAY, JANUARY 19th, MORNING SESSION.

NECESSITY CESSATION ZONE AND ITS SIGNIFICANCE IN THE THEORY OF VALUE.

By B. G. BHATNAGAR, ESQUIRE, M.A., F.S.S., LECTURER IN ECONOMICS,
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According to leading economists a commodity is said to have inelastic demand if a fall or rise in price causes very little or inappreciable change in the quantity that can be sold. I should not be very far from the truth if I were to say that as the term demand is always thought of with reference to a market, which according to the late Professor W. S. Jevons, is best defined as a group of buyers in active and uniform competition with each other, so the term inelastic demand should also always be understood with reference to one and the same set of persons, in active and uniform competition with each other. To this preliminary qualification we may add one more and say that the conception of elasticity or inelasticity of demand should not be interpreted in that narrow way which has been adopted by Dr. Marshall, while defining elasticity in these terms. "The elasticity of demand in a market is great or small according as the amount demanded increases much or little for a given fall in price, and diminishes much or little for a given rise in price." Although this definition is in perfect accord with the generally accepted definition of the term *demand*, yet it seems to be more desirable to extend the idea of *elasticity* from the changes in quantity demanded due to the changes in price to the changes in demand prices due to the changes in quantity offered for sale also. This is necessary because it is only when we extend our conception of elasticity in this way that it becomes more or less approximate to the actual facts of life. This fact has been very well recognised by modern economists in the drawing up of demand schedules, and by Dr. Marshall in his definition of the *Law of Demand*. Here *demand* is interpreted not in its narrower sense where it only means quantity that finds sale at a certain price in a market but in its wider sense where it also includes the price that buyers will offer for a certain quantity. It is the only correct way of looking at demand, because there are two ways open to the suppliers to influence the market. Either the suppliers may increase or decrease the quantity offered for sale, and we may be asked to notice the change in the demand price, or the suppliers may increase or decrease the price per unit of a commodity, and we may be asked to notice the change in the quantity that will be sold; and it is for the demand side to notice changes in both the cases.

THE NECESSITY CESSATION ZONE.

Conception of inelastic demand extended in this way, though largely true, is yet incomplete because it loses sight of a very important point that came to me last year when I was taking the M. A. previous class. For every commodity for which demand is inelastic there seems to exist a maximum quantity and a minimum quantity which is essential for the consumption of a given set of people. The difference between the maximum and the minimum necessary for the given population is very little and is inappreciable for perfectly inelastic demand commo-

dities. If we had a commodity for which demand was perfectly inelastic then the points of maximum and minimum demand would coincide, but as a general rule we have not got any such commodities, and the difference between elastic demand commodities and inelastic demand commodities is only of degree, and for most inelastic commodities we can say that the distance between maximum demand point and minimum demand point is very little. If we agree to call this distance between the two points as the necessity cessation zone, then we would find that changes in the price and quantity are sudden above and below the NECESSITY CESSATION ZONE, and are not very marked within it.

Let us suppose that people in the city of Allahabad which we may take, for the sake of argument, to be isolated, requires 10 maunds of salt per month at the maximum and 9 maunds at the minimum. Now let us take the case where supply is less than the NECESSITY CESSATION ZONE, and study the behaviour of the price.

SALT.

Quantity offered for sale.	Price per seer.
	As.
8 maunds	10
8½ „	9¾
9 „	9½
10 „	9¼
11 „	8½
12 „	7
13 „	5

So long as the quantity increases up to the Necessity Cessation Zone the fall in price is very little, but beyond that Zone the fall becomes rapid and ultimately precipitate. This is well illustrated by the graph A.

Taking the opposite case where the quantity begins to decrease from above the Zone downwards, we should find something as below—

SALT.

Quantity offered for sale.	Demand price per seer.
	As.
14 maunds	3
13 „	3½
12 „	3¾
11 „	4
10 „	4¾
9 „	6
8 „	8
7 „	11

Here also we notice that so long as the quantity offered for sale is above the Zone, rise in price is not violent or sudden, but when it begins to fall below the Zone, the rise in price becomes very much marked. This is very well illustrated by the graph B.

We may now begin the other way where the seller induces change in the price, and start from a state of affairs where the price of salt stands very high and then begins to decrease. Under these circumstances we may expect some such movement as follows :—

SALT.

Price per seer.	Quantity sold.
12 annas	8 maunds
11 "	9 "
10½ "	10 "
10 "	11 "
9 "	11½ "
8 "	11¼ "
7 "	11 "

Here the changes in the quantity sold produced by change in price are different, and we find a fairly rapid rise in the quantity sold up to the higher limit of the Zone as price goes on falling but a very inappreciable change above that. This is illustrated by the graph C.

Taking the other case where price begins to rise from a low point we would expect some such movement as follows :—

SALT.

Price per seer.	Quantity sold.
6 annas	12 maunds.
6¼ "	11 "
6½ "	10½ "
7 "	10¾ "
8 "	10 "
9 "	9¾ "
10 "	9¾ "
11 "	9½ "
12 "	9¼ "
13 "	9⅓ "

Here the decrease in the quantity up to the first line of the Zone is fairly marked, but beyond that it goes on getting less and less marked. This is illustrated by the graph D.

The usual graph and schedule do not bring out all these peculiarities of the inelastic demand, as no account is taken of the **NECESSITY CESSATION ZONE**. However I believe that if the above method of exposition of inelastic demand were adopted then it would throw much light on the modern theory of value, and help us a great deal in explaining many an important case of the determination of ratios of exchange in the market. Thus at present we only recognise that if the demand for a commodity is inelastic a rise or fall in price influences the quantity to be sold very little. But this is not the whole truth: Recognition of the existence of **NECESSITY CESSATION ZONE** would tell us many things more. To begin with it would help us in finding out the true behaviour of rise and fall of prices, when the quantities offered for sale are below or above or within the Zone. It would tell us that they would be different for the three cases. It would further help us in understanding more accurately the behaviour of quantities demanded at different prices asked by the sellers, as these prices happen to be demanded for quantities above or within or below the **NECESSITY CESSATION ZONE** for a certain commodity.

DISCUSSION ON MR. BHATNAGAR'S PAPER.

MR. BHATNAGAR supplemented his paper and said that by the "necessity cessation zone" he meant that for every commodity there existed a maximum quantity and a minimum quantity which was essential for consumption of a given set of people and this difference he called "the necessity cessation zone." He then explained by means of graphs that in the case of salt so long as the quantity increased up to the necessity cessation zone the fall in prices was very little and that beyond that zone the fall became rapid. He also explained the relative rise in prices when the quantity offered for sale was above or below this zone.

MR. JEVONS in welcoming this paper as treating of a very important branch of Economics regretted that the subject was not more fully put before them. He pointed out that the figures given in the paper were of a deductive nature and based perhaps on introspection and not on statistical evidence. He recognised the difficulty of obtaining statistical evidence but said that in the case of salt the necessary data were obtainable as the Government controlled the whole supply. He said that he considered that the shape of the demand curve given by Mr. Bhatnagar was correct for the salt which was consumed by people, omitting what was used for cattle and for industries. In conclusion he desired the reader of the paper to collect more reliable figures from statistics and make his investigations as to how the demand curve really ran.

MR. MYLES said that after hearing the explanation given by Mr. Bhatnagar he did not think that much had been added to Marshall's treatment of Demand and Elasticity of Demand. He considered that it would lead to great confusion to extend the term "Elasticity of Demand" as was suggested by the writer, and in support of this view compared the definitions of the Law of Demand as given by Marshall and by Chapman. The former he considered the better in that it did not introduce the quantity offered for sale. He also felt that Mr. Bhatnagar had not sufficiently distinguished between changes of demand under statical conditions, *i. e.*, in response to changes in price, and changes of demand under dynamical conditions, *i. e.*, when the circumstances affecting the demand had changed. He concluded by saying that if the figures given had been the actual figures, the results would have been most interesting.

MR. BHATNAGAR in reply to the criticisms said that his paper was worked out on a deductive basis and that he could not get at actual figures. He knew the paper was not perfect. He brought it before the Association only that he might derive inspiration and that he might benefit by the suggestions that would be made at the Conference. He promised to try to obtain actual statistics and work out the results. In conclusion he thanked the members for the very valuable criticisms and suggestions.

THE INDIAN CHAMAR.

BY B. L. VAJPAYEE BHIMPURE, M.A., PROFESSOR OF ECONOMICS,
VICTORIA COLLEGE, LASHKAR, GWALIOR. C. I.

In a small low-roofed *kuchcha* house almost always single-storeyed, containing one room in the majority of cases, and sometimes two rooms, there lives the Chamar—the shoemaker of India, with his family consisting usually of himself, his wife, and two or three children and in a few cases the old parents.

His house is much cleaner than he and the members of his family. His usual and hereditary industry is the making of shoes of the Indian type. From time to time he has also to supply labour in *Begâr*. He has to carry the dead bodies of cow, ox, buffalo and such other animals for which he receives an *anna* or two besides the hide which he cures himself and uses for the soles in his industry. He is usually immobile and as a conservative sticks to his own ancestral industry. His standard of living is ridiculously low. He takes his food twice a day but often half meals. *Juar* or *bajra*, pulses, salt, turmeric and pepper and sometimes some cheap vegetable form his food. It is only on ceremonial occasions that he tastes ghee, gur and oil. The fuel for cooking his food is usually supplied to him by his young ones who collect cow and horse dung and pieces of dry sticks and grass in the streets. A worn-out and dirty *kurta* and equally dirty *safa* and *dhoti* form his dress. He does not take his bath daily for want of clothes. His children wash their faces perhaps once a fortnight and are very dirty to look at. The surroundings of his house are very unhealthy. He has no power of seeing into the future perhaps because he is illiterate, does not know the benefits of thrift and possibly because he has never been told these things. He is in the majority of cases a drunkard. The females help him a deal but his children are all vagabonds and good for nothing. The grown-up boys take to the repair of shoes in the streets and sometimes to the doing of other unskilled works such as the carrying of stones and other heavy things.

His Industry.

Shoes of the old Indian type which the Chamar makes usually require raw hides (*charsa*) of buffaloes for the purpose of making the soles. The skins of sheep and goat are used for the uppers. The price of the buffalo *charsa* in Lashkar, where I have conducted an economic survey into the life of some eighty Chamars living a corporate life in a group of twenty-nine houses, is from four to six rupees and that of the skins six annas to two rupees. He colors the *charsas*, oils them, and after washing them finally uses them in his industry. From the two prepared *charsas* he then cuts the soles and the uppers. Women then take up the uppers and adorn them with imitation lace called *kalabattoo*. The uppers are then lined by the females. The males prepare the heels and press the soles.

The soles, the heels and the uppers are then sewn together sometimes with leather and often with twined threads which is usually run over with wax. One pair of shoes is usually prepared in one day of some 10 hours. He works from morn till eve but never at night except when the demand for shoes during marriage days is very great. He prepares only two kinds of shoes (i) plain and (ii) ornamented. The former are more durable. He often puts in riff-raff into the soles of the ornamented shoes.

The various instruments required for his industry are (i) *summa* for driving thread or nails inside, (ii) *ranpa* for levelling and softening the surface of the soles, (iii) *ranpi* for cutting the leather and (iv) *majhola* and (v) *katanni* for sewing; besides a slab of stone, and a small long piece of wood for sharpening the instruments and helping the process of sewing respectively. He makes use of no machinery whatsoever. (A few Chamars have however taken to the preparation of shoes and boots of the western type, in the making of which they certainly do use some simple machines).

From one *charsa* he gets material for six pairs and the cost of thread and lace is two to four annas. Approximately therefore the cost of production excluding the wages of a Chamar is Rs. 1-4-0 and a pair is sold these days for two rupees. He thus earns twelve annas per diem which for a family of five and an indebtedness of about 60 rupees is quite insufficient.

His socio-economic condition.

He is Hindu by religion. He remembers Ram before beginning his work and before taking his food. He also worships the sun. In or about his house there is sometimes a very small so-called temple of a Hindu deity. The marriages and other ceremonies are all performed after the Hindu style. Some of the Chamars worship on Thursdays the Mohammedan Sayyad Wali always kept in a niche. Most of them perform the worship of Satya Narayan on which occasion many of the caste-fellows are sumptuously fed. Except on ceremonial and religious occasions feasts are not held because the majority of them has to borrow to perform these feasts. Most of them take their food often on the dirty stone required in shoe-making. He is quite ignorant of the laws of sanitation and hygiene. He does not perhaps know what recreation and leisure mean. Temperate doses of wine on some days might therefore justifiably be allowed to him as affording him relief from his exhaustion and making him forget his otherwise undesirable, pitiable and even lamentable lot.

Early marriages are performed as a rule. There is no widow marriage among them although a widow can live as a wife with any man of the same caste. This is known as *Natra* or *Dharicha*. In my recent survey I came across a four years old wife.

He has no other capital with him except the house which is often owned and possessed by the occupant, the simple implements required in his trade, some silver ornaments of the value of twenty to thirty

rupees, one or two brass utensils and sometimes a pair or two of ready made shoes. In times of emergency he has always to look to the Bania.

The winter days are perhaps the worst for him because in a very small room the whole family has to lie down in the midst of things dirty and offensive. He has almost nothing to cover his body with except a patch-work of worn-out and cast-off clothes.

Horizontal and vertical mobility.

The ties of conservatism are getting loose and a Chamar is now seen working as a porter (Hamnal), driver, builder, sculptor, contractor, cloth-merchant, etc., but never as a confectioner.

The recent fall in the price of necessities of life has certainly benefitted him for his wages which do not fluctuate so quickly as prices do have not fallen in consequence of the fall in prices. His real wages have thus increased. But his improvident, spendthrift and drinking habits cannot allow him to make a proper use of this unearned increment.

His Panchayat.

Every Chamar is by virtue of his caste a member of the Panchayat. The Panch are however elected. The system of election though rudimentary and imperfect is yet followed in principle. An elected Panch works as such for his life. He can however be disqualified but for very serious breaches of the laws of morality. He does not go to the court except for cases which do not come under the jurisdiction of the Panchayat. It is not the nature of the case nor the nature of the plaint but the wish of the plaintiff and the defendant that determines the jurisdiction of the Panchayat. Suits of civil, criminal and religious nature are all tried by the Panchayat. The award of the Panch which is arrived at after long and free discussion in which all the members take part (females are not eligible for membership) is final. There is no appeal from it. The award takes the form of (i) fine of a few annas or rupees according to the status of the defaulter or (ii) *Hukkapani Band* which is ex-communication of the defaulter from smoking from the same *hukka* and joining the caste-dinner. If the amount of the fine is substantial a part is utilised in giving a feast to the caste people and a small part goes to charity. If the amount is small sweets and charity are the rule.

Some of the Chamars have, under the ægis of their Panchayat, begun to sign a bond on affidavit, promising not to take wine at all. This is often broken after a period of four or five months. Yet this is an auspicious beginning.

Some rich Chamars have also begun to dedicate and set apart a small yet commodious house for the use of their caste-fellows.

Suggestions to better his lot.

Legislation is not likely to change his lot for the better. Co-operation and education are the only two things to solve the problem of

Chamars in particular and that of labourers in general. Co-operation does not in his case mean the establishment of a credit bank or purchaser's stores. He has simply to be advised to purchase together with others his tobacco over which he spends half an anna per day, the thread, *kalabulloo*, and *charsas* for his industry. This will give him the profits of wholesale purchasing.

In order to bring him on to the habit of thrift a small box might be supplied him and he might be advised and brought round to decide to lay by unto that box one anna from the sale price of every pair. It has often been seen that he drinks away the whole of the producer's surplus. To wean him from the evil habit of drinking, early marriages, insanitary and ugly ways of living and also to increase his efficiency and raise his standard of living the intelligentsia should create opportunities of mixing with him frequently and should relate to him stories from the Ramayana to enlighten him and make him feel that he is one of us and with us. He cannot and should not be left behind in the economic advancement of India. It should also be the purpose of such visits to tell him the ways of living clean and decent and the advantages thereof. For example, it has been found that the children of the Chamar often wash their hands with the water with which the *charsa* has been cured. The nails, the eyes, the teeth of the children are dangerously dirty. I announced to the 33 children of the Chamarghar of 29 houses that I would distribute sweets on a certain day only to such children as would be found keeping their faces, eyes and teeth clean. To my astonishment I found that on that day 30 children were all ready to receive the sweets with their clean hands, nails, teeth, etc. This shows that the Chamars are living in ignorance and stand in need of an informing impetus.

Like all other labourers they have no regard for their word. Along with the starting of Insurance Funds I should like to suggest the starting of a Damages Fund for every corporate group of labourers. The Chamar, for example, takes an anna or two as earnest money and promises to supply the shoes at a fixed hour on a fixed day. But like most commercial and industrial dealers he often fails to keep his word although he knows that his brother who is true to his word has been prospering very quickly. The Damages Fund is to be under the supervision of the Panchayat and every producer who fails to supply the commodity at the promised hour should be required to contribute a small fine. The amount thus collected may be awarded as a prize to those that are true to their word or be returned in a larger proportion to such of the defaulters as have corrected themselves. This is likely to raise the commercial morality and consequently the goodwill of the producers in general.

Agents of Labor Bureaus should try to inform the Chamar and other laborers of the existence of factories in and about their places, the nature of the work done there, the rate of wages obtainable there and the opportunity and environment advantages,

DISCUSSION ON MR. VAJPAYEE BHIMPURE'S PAPER.

Mr. Bhimpure read his paper.

MR. KUMARASWAMI wanted to know how the Chamar can be brought to the habit of laying by some money as Mr. Bhimpure suggested when in another part the writer said that the Chamar "earns twelve annas per diem which for a family of five and an indebtedness of about Rs. 60 is quite insufficient." As regards co-operation he explained that the attempt made in this direction in the Madras Presidency proved a failure due probably to the conservative habits of the Chamars. Referring to a Damage Fund he said it would not work properly as it was not possible to weld all the Chamars together even for ordinary production on a large scale, and this fund would act adversely on the ability of subsistence.

MR. KALE said that the remedies suggested to improve the conditions of the Chamars and the difficulties to be encountered in connection therewith went to show that it was not possible to reconstruct on the old corporate tendencies of the people about which so much was talked by Mr. Mookerji two days ago. He also pointed out that the difficulties mentioned in this paper in regard to the amelioration of the conditions of the Chamars were common difficulties experienced in the case of almost all handicraftsmen and that what applied to Chamars applied also to weavers and other classes of workers. Their outlook was narrow and unless this was widened there was no prospect of improving their lot. He said that a change should come in the social system. In regard to starting co-operative societies for these people he agreed with Mr. Kumaraswami in saying that they would not serve the purpose as they cannot work as members of a corporate society. He suggested that the one way of improving them socially, morally and economically was to divert them to new industries.

SARDAR PRITAM SINGH pointed out that any sudden change in the standard of living of these people by diverting them to other industries would affect them adversely and suggested for the consideration of the Conference a middle course, namely, that of distributing power in a manner that might reach the homes of these people who worked in cottages, and thus slowly bring about industrialism.

MR. SODHNAS said that no difference was made socially among the Brahman Sikhs against the Chamar and that all who were baptised in Sikhism were socially equals. He also said that the Chamars of his religion worked in the same manner as zamindars and were earning their incomes in a decent manner. He concluded that the solution of the difficulties raised in the paper consisted in raising the social standard of life of this class of people.

MR. TREVASKIS said that in the Punjab co-operation was doing good work in the matter of ameliorating the condition of these classes, especially in the Hoshiarpur and Lyallpur districts. He also pointed out that as a result of the working of three Christian societies in Gujranwala the Chamars had given up the habit of drinking and gambling.

MR. VAJPAYEE BHIMPURE in reply to Mr. Kumaraswami said that the Chamars on certain occasions did earn more than what they required and were in a position to lay by something. He also explained how by persuasion he was able to make them lay by four annas a month. He then said that the object of his paper was to show that it was not possible to raise them unless they went to these people and tried to improve their lot. The Chamars, he said, were in their present position owing to ignorance and want of education and were capable of improvement if lectures were held for them on questions of cleanliness, decency, sanitation, thrift and so on.

FACTORY LEGISLATION AND ADMINISTRATION IN THE PUNJAB.

By W. H. ABEL, INSPECTOR OF FACTORIES, PUNJAB.

(In the absence of the writer, this paper was read by Prof. Myles.)

Legislation to protect workers in factories without unnecessarily hindering and handicapping industrialists is a question offering much scope for a diversion of opinion. The many angles of vision taken by administrators, producers and workers create endless discussions, all of which should tend for better legislation and greater efficiency.

Whilst factory legislation should for many reasons be as uniform as possible, the peculiarities of each province must be taken into consideration when framing rules which are to apply to its products.

The Punjab being purely agricultural, such industries as exist are for the convenience of agricultural developments, and except in instances where big engineering workshops have outgrown their original purpose, as in the case of Railway Workshops and such essential industries as printing and power generating, the industries of the Punjab are, generally speaking, subject to the whim of the agriculturists.

Uniform legislation is aimed at for many reasons and found on broad principles to be the most satisfactory. Labour of any particular sort is not confined to any one locality, travelling is comparatively easy, news of every kind travels in India with remarkable rapidity; therefore workers would quickly flock to industrial centres where in their opinion legislation and conditions were more favourable: this is a strong reason for aiming at uniform legislation. Another point is that big industrialists have several factories in two or three provinces often controlled from one central office; purely provincial legislation and administration would be as difficult to these factory owners, as it would be to the one administrator, who probably has three or more provinces to control. Further, markets would vary according to the efficiency or adaptability of legislation to one particular province, and industry would gradually move into that district, involving much unnecessary transport of raw material to manufacturing centres and denuding other provinces of their town population. Until recent years the States of America were individually responsible for factory legislation and it was not unusual for one State to compete against another to entice factory owners to start industries in their particular States. Regardless of health, physique and efficiency, workers in some States were allowed to be employed for 18 hours a day, working unceasingly at high pressure. Naturally health had to suffer, and eventually the State; since operatives were totally exhausted after a few weeks, and had to take complete rest. It is not surprising that such legislation, or lack of it, was quickly changed, and a legislation administered, which endeavoured to give the worker the best conditions to enable him to produce the most efficient work.

1922 was the first year that a uniform set of rules made under the Amended Factories Act (July 1922) was adopted in India. It is too

early to judge as to how far this adoption will prove a success, but the Act itself being uniform for the whole of British India, the broad principles of uniformity were always taken as the frame work on which provincial rules were framed and they differed only slightly from each other.

As an agricultural province it is interesting to note the development of industries wholly dependent on the products of the land, helped tremendously by vast irrigation schemes. Industrial centres have sprung up in a very short space of time bringing in their train more efficient legislation. In 1914, there were 149 cotton ginning factories working under the operation of the Factories Act, one oil mill and 6 flour mills employing a total of 10,247 operatives; whilst in 1921 the numbers had reached 212 cotton ginning factories, 3 oil mills and 11 flour mills, with a total number of operatives of 15,733.

Much of the labour necessary for the increased industries is drawn from provinces other than the Punjab. Possibly as much as one-third of the factory workers are from Rajputana and Central India; invariably this class of worker has little interest in agriculture as he possesses no land, whereas the Punjabi is naturally of the land and usually has a small plot of land belonging to him or to his family which keeps him interested and invites his attention during the harvesting season. Where factory work is seasonal and casual, labour is taken exclusively from the land and this forms a very convenient method for country people to earn a livelihood between the season of sowing and reaping. Cotton ginning factories are all seasonal and draw their labour from this type. Factory legislation and administration for this class of workers requires careful consideration. Firstly the workers themselves know nothing whatever about discipline, method or the dangers of machinery. Secondly a factory working for 4 to 6 months a year, is not kept up in the same efficient condition as a perennial factory; and thirdly, since these factories are situated in the country and therefore further removed from the influence of law and order, they know very little about legislation. Cotton ginning factories might almost be described as constituted of family parties—all members of a family contributing towards the daily work. Children are often found taking over their parents' duty for an hour or more while the parents are taking meals, or a whole family will congregate for their meals on a heap of cotton in the ginning room, regardless of excessive dust, or the fact that the younger members of the family may wander off amongst the dangerous gins and machinery. Legislation has done much to prohibit children from entering ginning rooms, the success of which is very marked. It would be interesting to compare any statistics possible, to show as to how far the health of the children has improved since a genuine attempt has been made to keep children out of the dusty rooms of the factories. Factory owners in Rajputana give us a lead in respect to dealing with the children belonging to their workers, which might be followed with advantage. Men and women are employed extensively on wool picking and cleaning; they come in from their villages to the factory every morning bringing with them their children and food, and remaining in the factory or compound until the

end of the day. In the larger factories a nursery is provided, usually a godown fenced off, where all children too young to work, are placed under the care of one or two women.

The godown is used as a feeding room in which all workers collect during the rest interval, getting clear of the dust and heavy atmosphere of the factory for a whole hour. Whilst this may be looked upon as a primitive method of disposing of children for the time being, it offers all sorts of possibilities, and might easily develop into something extremely useful.

Those in charge of the children might be chosen from an educated class, capable of instructing the children in cleanliness; discipline might be taught, and if a real effort were made at education it is not unlikely that District Boards could be persuaded to take an interest in these nurseries, eventually bringing them up to the style and standard of a school. Many methods of showing a keen and intelligent interest in their employees might be adopted by factory owners, examples of which go to prove that the advantages of such schemes are mutual. We have only to look up such co-operative schemes as are in existence in big industrial concerns in Europe and America, and note that invariably these industries are in a flourishing condition, to realize that there are immense possibilities for similar successful schemes in India.

Such a scheme, still in its infancy, and therefore, necessarily careful of not running before it can walk is a scheme being worked by the Birla Cotton Spinning and Weaving Mills, Delhi. This scheme although only in its second year of existence has a most promising future, and is already in a flourishing condition. With a hope that this scheme may catch the eye of industrialists in the Punjab, keen to do their best for the benefit of their workers, it is given here in detail.

“ Scheme for Officers and Workers participating in the profits of the Birla Cotton Spinning & Weaving Mills, Ltd., Delhi.

The following scheme for Officers and Workers participating in the profits of the Birla Cotton Spinning & Weaving Mills, Ltd., Delhi, was adopted at an Extraordinary General Meeting of shareholders held at the registered office of the Company at No. 137, Canning Street, Calcutta, on Tuesday, the 30th November 1920.

1. Ten per cent. of the net profits earned by the above-named Company in every half-year left after making provisions for—

- (a) Directors' fees and commission,
- (b) Managing Agents' Commission,
- (c) Depreciation Account,
- (d) Income-tax, Super-tax or other impositions of the Government, Municipality or other public body,
- (e) or any other account that the Managing Agents may consider should be included in this group,

but before making any provision for the Reserve Fund, Distribution of Dividends and carrying over to the next half-year shall be distributed among the Officers and Workers by the Company at its Mills if they are found to have the qualifications and not be subject to the disqualifications hereinafter set forth.

2. All Officers and Workers, who were in employment on the 1st January 1920, or have been or will be employed since that date and have continuously worked at the Mills for a period of at least $1\frac{1}{2}$ years and have continued to work at the Mills until the General Meeting sanctioning the payment under this Scheme for the relative half-year is held, shall be deemed to be entitled to the benefits of this Scheme.

Explanation (1)—The term 'continuously' means that the person should not have absented himself from work without the previous permission of the Head Officer in charge of the Mills.

Explanation (2)—Misconduct includes—

- (a) Fomenting Strikes,
- (b) Going on Strike,
- (c) Disobedience of Superiors' orders,
- (d) Continued short or bad production,
- (e) Creating disturbance with a fellow-worker,
- (f) Any act of commission or omission tending to injure the interests of the Company or the aiding or the abetting thereof or entering into any conspiracy therefor.

Explanation (3)—The certificate of the Managing Agents or their authorised representative shall be deemed to be conclusive as regards the qualification or disqualification of any person.

3. A declaration of the Managing Agents or their authorised representative as to the amount divisible under clause (1) hereof shall be deemed to be conclusive and no Officer or Worker shall be entitled to challenge the correctness thereof or to have inspection of any books, accounts, vouchers or other papers whatsoever or to have any explanation whatsoever.

4. The sum of money declared under clause (3) hereof shall be divided among the Officers and Workers qualified under clause (2) hereof in proportion to the number of coupons held by them respectively. The first payment shall be made in respect of the half-year ending on the 30th June 1921.

5. As soon as possible after this Scheme comes into force, each Officer and Worker (unless temporarily engaged) will be deemed to be entitled to as many coupons as his monthly remuneration prevailing at the time shall be multiple of ten and for this purpose amounts less than Rs. 5 will not be counted and amounts over Rs. 5 will be counted as Rs. 10. At the end of each half-year (and for the purpose of this clause the first of such half-years shall be the one ending on the 30th June 1921) such coupons shall be renewed on the basis of the monthly remuneration earned in the last preceding month.

Illustration.—A person earning a monthly remuneration of Rs. 55 will be entitled to five coupons and a person earning a monthly remuneration of Rs. 56 will be entitled to six coupons.

6. Service Cards will be issued to each Officer and Worker on which will be entered the number of coupons to which the holder is entitled under the last preceding clause and on which will be noted on each payment day the conduct of the holder during the preceding period. The Service Cards must be produced by each Officer and Worker for inspection by the Distributing Officer on the closing of each half-year to enable him to see if the Officer or Worker is qualified for the benefits of this Scheme. Payment day means the day on which the remuneration or wages of each coupon-holder shall be paid.

7. The Managing Agents shall be entitled to add to, alter or amend this Scheme or the method of working thereof.

8. The interpretation and working of this Scheme or any provision thereof by the Managing Agents or their authorised representative shall be final and no suit or legal proceeding whatsoever shall lie at the instance of any Officer or Worker. The decision of the Managing Agents on any question arising under or out of or in connection with this Scheme or any modification thereof shall be final and binding."

(Sd.) G. D. BIRLA,

Chairman.

Such schemes undoubtedly do a great deal towards making a factory a success ; they aid smooth running and create *esprit de corps* amongst employees and employers ; they are reflected favourably in every direction and not least of all on the duties of administration of Factory legislation.

DISCUSSION ON MR. ABEL'S PAPER.

MR. MYLES in opening the discussion said it was interesting to find a profit sharing scheme in our midst. There was nothing new at all about the scheme; in fact such schemes had been tried time and again in England during the past hundred years. But as the Report on Profit Sharing and Co-partnership in the United Kingdom showed such schemes had in practice generally proved unstable. Only in a few instances had firms been on a profit sharing basis for any length of time. There was a tendency for the system to spread during times of industrial prosperity and to disappear in times of depression. The attitude of the modern Trade Union was not favourable towards such schemes, though in the Coal Settlement in the summer of 1921 the general principle was accepted. He hoped that the new scheme in Delhi would be successful.

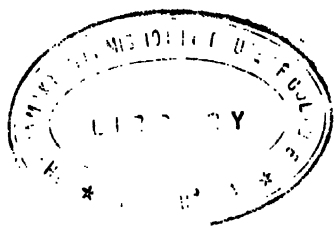
LALA SHIV DAYAL expressed disappointment at the way in which certain important points had been omitted in the paper. The important question he considered was whether labour in India was mobile or not. He regretted that the paper in one word assumed that labour was mobile because of the facility of communications. The paper did not take into consideration the fact that India was a country of distances and there was also the further difficulty of language. On account of this difficulty he believed that there was no movement of labour from the south to the north or *vice versa*. He suggested to the author of the paper the consideration of the question of mobility of labour in detail and if he found that labour was not mobile, to adopt factory laws which might be more in harmony with the conditions prevailing in the provinces concerned. Another point was the difference in climatic conditions in different provinces. In his opinion all these considerations led to the inference that factory legislation should be a provincial concern and not an imperial one. The next point he referred was to the profit sharing scheme and he asked whether there was any factory in the Punjab or any Government concern such as the North-Western Railway or the printing presses owned by the Government where this scheme had been adopted. He concluded by saying that the reference to people coming from Rajputana was very meagre.

MR. ANTIA said that in regard to mobility of labour India cannot be regarded as one country but as a group of countries. It was too much to expect a Punjabi labourer to go south. Mobility of labour can be expected only in certain common linguistic provinces. In Bombay he found several labourers from the Central Provinces, Konkani and Bijapur. In Madras the labourers came from various parts of the Province. He therefore concluded that mobility of labour can be applied only to certain linguistic zones.

Mr. SODHBANS speaking on the mobility of labour said that there were a good number of Punjabi labourers in Behar and Orissa working in Tatanagar and in several coal mines, and similarly several labourers from the Central Provinces and Rajputana and from other parts of the country came to the Punjab thus showing that mobility of labour did exist in this country.

FOURTH DAY :—FRIDAY, JANUARY 19th, AFTERNOON SESSION.

ANNUAL BUSINESS MEETING.



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